

WATER DATA REPORT
ANNOTATED BIBLIOGRAPHY
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ABSTRACT

This report and its accompanying Microsoft Excel workbook summarize water data we found to support efforts of the Environmental Protection Agency's WaterSense program. WaterSense aims to extend the operating life of water and wastewater treatment facilities and prolong the availability of water resources by reducing residential and commercial water consumption through the voluntary replacement of inefficient water-using products with more efficient ones. WaterSense has an immediate need for water consumption data categorized by sector and, for the residential sector, per capita data available by region. This information will assist policy makers, water and wastewater utility planners, and others in defining and refining program possibilities. Future data needs concern water supply, wastewater flow volumes, water quality, and watersheds. This report focuses primarily on the immediate need for data regarding water consumption and product end-use.

We found a variety of data on water consumption at the national, state, and municipal levels. We also found several databases related to water-consuming products. Most of the data are available in electronic form on the Web pages of the data-collecting organizations. In addition, we found national, state, and local data on water supply, wastewater, water quality, and watersheds.

1. INTRODUCTION

This report provides annotated references to current, publicly available information on volumes of domestic water consumption and on the specifics of water-using products. The report and Excel workbook that accompanies it are intended to enable policy makers and water utility planners to estimate the benefits of promoting the use of water-efficient products. The sources and quantity summaries provided here can serve as input defaults into economic evaluations of water-efficiency programs. In this report, we summarize information about water consumption and water-using products. In addition to the sources for water consumption and water-using products, we have included some data sources regarding water supply, wastewater, water quality, and watersheds. The initial information presented here on these last four topics can be expanded at a future date.

The introduction to this annotated bibliography outlines the objectives of the research, briefly describes the data, discusses the format in which the data are presented, describes the methodology used for gathering data, specifies what is not included, and makes suggestions for next steps in this research. The introduction is followed by a summary of our findings for residential and commercial water consumption and the flow rates of water-using products. The annotated bibliography itself follows the summary, highlighting important data sources and summarizing the contents of each.

1.1. Summary of data

Most of the data included in this report are available in electronic form to the public or to members of water-related organizations. On the topic of water consumption, data sources are listed according to the geographic area covered—national, regional, state, or municipal. Sources related to water-using products are divided into those that address end-use data and those that comprise product performance lists. For each source, we list its identifying features and summarize how the source’s information relates to the WaterSense program’s needs for model input default values.

1.2. Format of data

The data are organized in a Microsoft Excel workbook. The workbook comprises four worksheets, as described below.

- **Definitions**, which provides definitions of the abbreviations used in the column headings and cells.
- **OrgContactInfo**, which contains the name of the organization that collected the data, the reporting entities, the URL of the data set, and contact information, if available.

- **DataSources**, which contains, for each data element, the source name, the geographic area covered, the relevant sector, the year the information relates to, and, for product information, the product type. Each data element in this worksheet is linked by its organizational identifier to a row in the **OrgContactInfo** worksheet.
- **Summary tables**, which includes pivot tables organizing the sources according to a range of variables.

1.3. Methodology

Nearly all the research for this task was performed via Web search. Major data sources, such as the Web sites of the U.S. Environmental Protection Agency (EPA) and U.S. Geological Survey (USGS), yielded links to other sources, including state, regional, and municipal Web sites. For some states and municipalities, we made telephone contact with employees who directed us to the appropriate URLs for the data from their areas.

1.4. Summary of Information Not Included

For this report and workbook, we collected sources found on the World Wide Web (Internet) that provided information pertaining primarily to (1) residential and commercial water consumption and (2) the flow-rate and market saturation of water-using products identified by the EPA's Office of Water as possible contenders for a water-efficiency label. Information not appearing on the Internet, therefore, was not included in this report or workbook.

Only major sources are cited for other types of water-related information, and this report does not summarize all the information available regarding water supply, wastewater, water quality, and watersheds.

Other information not included can be summarized as follows.

- Sectoral information other than residential or commercial
- Secondary sources of data on water consumption
- Commercial Web sites that endorse particular products
- Comprehensive information on water sources, wastewater flow volumes, water reuse, watershed characteristics, or water quality
- Energy use related to water and wastewater collection, transport, or treatment

1.5. Next steps

Three next steps for following up on this report can be identified immediately. First, the information in this report could be augmented by including reports and data not found on the Internet. Second, because efforts of the WaterSense program have implications for water supply and wastewater issues, including the environmental benefits of conserved water and changes to wastewater flow and composition, future studies could examine the

effects of water conservation and use of efficient water supply on wastewater, water quality, watersheds, energy use, and related changes to air quality. Third, for this report and any additional collected information to continue to be useful and kept current, a mechanism could be explored for individuals to enter information from their water bills regarding their water-using products and their household or business water consumption and location.

2. SUMMARY OF FINDINGS

This section summarizes the data we found, first by describing the volumes of water used by various sectors and then, focusing on the commercial and residential sectors, identifying how that water is distributed among various water-using products (end-uses). (More detailed information is provided in Section 3, Annotated Bibliography.) As regards water consumption data, we present information on four topics: the distribution of water use across sectors for the nation and for states, water volumes associated with various commercial enterprises, residential water consumption for specific end-uses, and per capita water use. For data on water-using products, we present information on flow rates of plumbing products.

2.1. Water Consumption/Withdrawals

Nationwide water consumption/withdrawal data are available from the U.S. Geological Survey (USGS), listed by state and sometimes county, and disaggregated by sector. All states maintain a reporting system and produce annual data reports that describe and measure water resources; most have Web pages that provide access to detailed data on water consumption. Table 1 lists annual water withdrawals for various sectors based on USGS data presented in *Estimated Use of Water in the United States in 2000*. It should be noted that, although not included here, the USGS also provides water use data for the Livestock, Aquaculture, and Mining sectors. The sectors considered here are thermoelectric, public supply, domestic, industrial, and irrigation. Sector percentages are shown for the nation, census regions, and divisions. In addition, information for the four most populous states is presented.

Of the various sectoral uses shown in Table 1, domestic use stays consistent across geographic areas at about 1 percent. Industrial and public supply vary somewhat: public supply is higher on the East and West coasts, whereas industrial use is higher in the Midwest and South. Irrigation and thermoelectric vary the most across regions.

Table 1. Annual Fresh and Saline Water Use by Sector, Census Region, and Division, as well as for the Four Most Populous States (USGS, 2000)

	All Sectors (billion gpd)	Thermoelectric	Public Supply	Domestic (Indoor/Outdoor Household)	Industrial	Irrigation
Consumption [billion gallons per day (gpd)]	408	195	43	4	20	137
National Percentage		48%	11%	1%	5%	34%
Census Region						
Northeast [*]	38.4	77%	16%	1%	5%	1%
Midwest [†]	85.3	67%	8%	1%	6%	18%
South [‡]	142.4	65%	8%	1%	8%	18%
West [§]	127.5	11%	13%	1%	1%	75%
Census Division						
New England ^{**}	14.9	63%	32%	1%	2%	1%
Middle Atlantic ^{††}	23/6	85%	6%	1%	7%	1%
South Atlantic ^{‡‡}	48.9	83%	5%	1%	10%	1%
East North Central ^{§§}	36.4	45%	12%	1%	2%	40%
East South Central ^{***}	64.9	77%	6%	1%	6%	9%
West North Central ^{†††}	31.6	66%	21%	1%	7%	5%
West South Central ^{‡‡‡}	46.7	46%	4%	0%	11%	29%
Mountain ^{§§§}	63.3	1%	11%	0%	1%	87%
Pacific [*]	63.1	21%	13%	1%	2%	63%

^{*} Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, Pennsylvania, New Jersey

[†] Ohio, Michigan, Indiana, Illinois, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas

[‡] Delaware, Maryland, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Texas, Oklahoma

[§] Montana, Wyoming, Colorado, New Mexico, Idaho, Utah, Arizona, Nevada, Washington, Oregon, California, Alaska, Hawaii

^{**} Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut

^{††} New York, Pennsylvania, New Jersey

^{‡‡} Delaware, Maryland, West Virginia, Virginia, North Carolina, South Carolina, Georgia, Florida

^{§§} Ohio, Michigan, Indiana, Illinois, Wisconsin

^{***} Kentucky, Tennessee, Alabama, Mississippi

^{†††} Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas

^{‡‡‡} Arkansas, Louisiana, Texas, Oklahoma

^{§§§} Montana, Wyoming, Colorado, New Mexico, Idaho, Utah, Arizona, Nevada

	All Sectors (billion gpd)	Thermoelectric	Public Supply	Domestic (Indoor/Outdoor Household)	Industrial	Irrigation
Most Populous States						
New York	12.1	75%	21%	1%	2%	>1%
California	50.0	26%	12%	1%	0%	61%
Texas	28.6	46%	15%	0%	8%	30%
Florida	19.8	64%	12%	1%	1%	22%

*Washington, Oregon, California, Alaska, Hawaii

Table 2 shows average daily water consumption for industrial, commercial, and institutional enterprises, listed alphabetically. We found two Internet sources for information on average daily water consumption.

Table 2. Average Commercial, Institutional, and Industrial Water Consumption

Commercial Enterprise	Average Daily Water Consumption per Connection (gal.)*	Average Daily Water Consumption (gal.)**
Airports/flying fields	53,213	
Amusement and recreation facilities	5,919	
Amusement parks	36,703	
Auto-repair shops	592	
Beef cattle feedlots	1,088	
Bottling plants	111,760	
Car washes	2,302	
Cement production	4,291	
Colleges/universities	83,553	
Dairy farms	3,008	
Day-care services for children	714	
Dentist offices	363	
Dry-cleaning plants	4,597	
Eating establishments	4,480	
Electronic/printed circuit board industries		107,210
Elementary and secondary schools	4,492	
Executive offices	3,289	
Food production		18,995
Florists	6,277	
Funeral services/crematoriums	640	
Gasoline service stations	1,683	
General medical and surgical facilities	31,110	
General warehousing and storage	1,931	
Grocery stores	7,490	

Commercial Enterprise	Average Daily Water Consumption per Connection (gal.)*	Average Daily Water Consumption (gal.)**
Hospitals	8,211	
Hotels/motels/tourist courts	43,401	33,033
Industrial laundries	60,347	
Commercial laundries		13,968
Meat-packing plants	37,942	
Paperboard		669,189
Petroleum refining	136,288	
Prisons/correctional institutions	26,563	
Public golf courses	8,010	
Pulp mills	666,182	
Religious organizations	959	
Sawmills and planing mills	18,674	
Shopping centers/malls	7,083	
Stores and offices	2,437	
Stores and retail services	1,353	
Veterinary services	347	
Vocational schools	4,882	

* This information can be found in Vickers, *Handbook of Water Use and Conservation*.

** This information was drawn from the report, *Commercial, Institutional, and Industrial Water Use Survey Program*, prepared for the Santa Clara Valley Water District

Table 3 shows average per household water consumption for single-family households. The table draws from various sources for both water consumption totals and distributions among end-uses. The sources are ordered by report date. Until the American Water Works Association Research Foundation (AwwaRF) study by Aquacraft in 1999, the 1984 Housing and Urban Development (HUD) report provided the most comprehensive information on national per household water consumption. Between the 1984 HUD study and the 1999 Aquacraft study, per capita water consumption declines by 6.3 gallons per capita per day (gpcd).

Table 3. Per Household/Residential Water Consumption

Consumption [gallons per capita per day (gpcd)]											
Source	Total	Toilet	Clothes Washer	Shower	Faucet	Other Domestic	Bath	Dishwasher	Leak	Unknown	Outdoor
Aquacraft – 12 cities (1999)	171.8 (71 indoor)	18.5	15	11.6	10.9	1.6	1.2	1.0	9.5	1.7	100.8
East Bay MUD, CA (2004)	65 (indoor)	20	14	12	10	--	3	1	5		
Aquacraft – East Bay, CA (2003)	86.2 (indoor)	19.9	13.9	13.9	12.2	0.1	3.0	1.0	25.7	-	-
Aquacraft – Seattle (1999)	63.6 (indoor)	18.8	14.8	9.0	9.2	0.2	3.7	1.4	6.5		
Aquacraft – Tampa (2004)	77.2 (indoor)	17.9	14.7	12.7	9.4	0.2	2.6	0.6	18.8		
Vickers (2001)	45.3 (indoor)	8.2	10.0	8.8	10.8	1.6	1.2	0.7	4.0		
AWWA (1999)	72.6 (indoor)	20.1	15.1	12.6	11.1	1.5	1.2	1.0	10.0	-	-
DWR (1997)	75										
DWR (1993)	80										
CUWA (1992)	40-90										
MWD (1985)	86 (indoor)										
HUD (1984)	77.3 (indoor)										

2.2. Water-Using Products

End-use data are available primarily through the American Water Works Association Research Foundation (AwwaRF) report titled, *Residential End Uses of Water* (see Section 3.2.1) and other research reports. These reports examine such topics as opportunities for utilities to conserve water. The reports include a summary of water

consumption for the area under study, broken down by sector and end-use, as well as estimated savings from water-conserving products.

We found several product databases, which contain lists of efficient water-consuming products or products that meet certain performance specifications. Those databases are updated periodically with information provided by manufacturers or testing facilities. It was impractical to list all data parameters for product databases. In some cases, only energy information is given for water-consuming products. Organizations that advocate water efficiency have requested wider inclusion of water consumption information in energy efficiency listings for products such as dishwashers. We also included performance test results, as well as lists of products meeting industry standards, when data on water consumption were provided. Databases of water-consuming products are maintained by the EPA's ENERGY STAR program, the California Energy Commission, Natural Resources Canada, Consortium for Energy Efficiency, and the Food Service Technology Center. Utilities, trade organizations, and others publish lists of products that qualify for rebates based on stipulated standards or product test results. Table 4 lists water-consuming products for which the EPA may consider an efficiency label. Table 5 lists flow rates for specific water-consuming products.

Table 4. Water-Consuming Products Considered for Efficiency Labels

Products	Residential	Commercial/ Institutional	Industrial
Aerators	X		
Clothes washers	X	X	
Cooling Towers		X	X
Dishwashers	X	X	
Evaporative coolers	X		
Faucets	X	X	X
Food steamers		X	
Hot water dispensers	X		
Ice machines		X	
Landscape irrigation	X		
Pre-rinse spray valves		X	
Showerheads	X	X	X
Toilets	X	X	X
Tub-spout diverters	X		
Urinals		X	X
Wash fountains		X	

Table 5. Flow Rates for Products

Product	Source	N*	Min.	Max.	Average	Unit
Commercial clothes washers (CW) (2.8 gallon capacity)	CEC	66	14.5	33.6	18.6	gal./wash
Non-commercial CW (3.2 gallon capacity)	CEC	49	12.06	34.24	28.5	gal./wash
High-efficiency toilets	EBMUD	31	1	1.35	1.2	gal./flush
Kitchen faucets	CEC	357	0.05	2.2	1.8	gal./minute
Lavatory faucets	CEC	2,446	0.05	2.2	1.8	gal./minute
Metering faucets	CEC	65	0.25	0.25	0.25	gal./minute
Wash fountains	CEC	95	0.05	2	0.6	gal./minute
Replacement aerators	CEC	357	0.05	2	0.6	gal./minute
Showerheads	CEC	3,638	0.25	2.5	2.4	gal./minute
Tub spout diverters	CEC	670	0	0.05	0.0	gal./minute
Commercial pre-rinse spray valves	CEC	2	1.12	1.15	1.14	gal./minute
Blowout water closet	CEC	3	3.5	3.5	3.5	gal./flush
Dual-flush water closet	CEC	1	1.6	1.6	1.6	gal./flush
Electromechanical hydraulic water closet	CEC	5	1.6	1.6	1.6	gal./flush
Flushometer tank water closet	CEC	17	1.6	1.6	1.6	gal./flush
Flushometer valve water closet	CEC	123	0.5	1.6	1.3	gal./flush
Gravity-tank type water closet	CEC	304	1.43	1.6	1.6	gal./flush
Prison-type water closet	CEC	36	1.5	1.6	1.5	gal./flush
Trough-type urinal	CEC	4	2.25	4.5	3.4	gal./flush
Urinal	CEC	60	0.5	1	0.9	gal./flush
Waterless urinal	CEC	7	0	0	0	gal./flush

*Number of product models evaluated

Table 6 lists water-use data for commercial ice-making machines that qualify as energy efficient according to the Consortium for Energy Efficiency.

Table 6. Water Use Summary—Ice Makers compliant to CEE target level*

Type	Potable Water Use (gal./100 lb. ice)		
	Size (lb. ice/day)	Min.	Max.
Air-cooled, ice-making head	<450	18.0	35.2
	≥450	18.0	26.6
Air-cooled, self-contained	<175	25.0	50.0
	≥175	27.0	32.9
Air-cooled, remote condensing with remote compressor	<934	17.0	26.4
	≥934	One model (18.1)	
Air-cooled, remote condensing w/o remote compressor	<1,000	16.6	33.3
	≥1,000	18.0	31.7
Water-cooled, ice-making head	<500	16.8	43.7
	≥500	18.0	30.6
	≥1,436	18.0	24.1
Water-cooled, self-contained	<200	32.2	33.5
	≥200	27.0	35.6

*<http://www.cee1.org/com/com-ref/im-prod.pdf>

2.3. Other Data Sets

Water supply data are available for every public water system in the country through the EPA's Safe Drinking Water Information System (SDWIS). States and EPA regions collect the data. In addition, most states or regions have a USGS Water Science Center that produces an annual Water Data Report or Water Resources Data that provide detailed measurements of water flow, levels, and/or discharge associated with rivers, streams, reservoirs, lakes, and groundwater observation wells. The Web pages of state, regional, and municipal water agencies also have water supply databases.

Water quality data are available through the EPA's STORage and RETrieval System (STORET). The EPA's STORET Web page has links to state drinking water offices for local water quality reports. In addition, most states or regions have a USGS Water Science Center that produces an annual Water Data Report or Water Resources Data that provides detailed results of water quality monitoring from stations in rivers, streams, reservoirs, lakes, and groundwater observation wells. The Web pages of state, regional, and municipal water agencies also provide water quality data.

Wastewater data are collected periodically by the EPA through the Clean Water Needs Survey (CWNS), which provides data on publicly owned wastewater collection and

treatment facilities. The Web pages of state, regional, and municipal water agencies also may contain wastewater databases.

Watershed data are collected and reported through the EPA's Water Information Network (WIN). This database contains national and regional information on public watersheds. The Web pages of state, regional, and municipal water agencies also contain information on watersheds.

3. ANNOTATED BIBLIOGRAPHY

This bibliography contains an annotated reference for each data source in the accompanying Excel workbook.

Each reference will have all or some of the following elements.

- Organization code used in the Excel spreadsheet workbook (OrgContactInfo)
- Author(s), if any
- Title of publication or Web page
- Date of publication and/or date Web site was visited
- Hyperlink to Web site, if appropriate
- Description of document, Web site, or PDF file
- Organization responsible for the data and its geographic location
- Publication details for printed document.

References are categorized into three primary sections according to topic: Water Consumption, End-Use Data, and Other Data Sets. Other Data Sets includes Water Supply, Wastewater, Water Quality, and Watersheds. Within each category, we list references in geographic order: first any national, then state, county, regional, or municipal entities. Within these categories, listings are in alphanumeric order by organization code. Data sources that contain information on multiple topics appear in more than one section. Table 7, below, describes the numbers of sources of data found for each of the topics covered.

Table 7. Numbers of Citations for Data on Covered Topics

Data Type		Number of Citations
Water Consumption	National	13
	State	12
	Regional	3
	Municipal	2
Product Lists	End-Use Data	25
	Product lists	51
Other Data Sets	Water Supply	129
	Wastewater	12

Data Type		Number of Citations
	Water Quality	52
	Watersheds	16

3.1. Water Consumption Data

The U.S. Geological Survey (USGS) was our primary source of data on water consumption, which they have been tracking nationwide for 50 years. States, regional entities, and municipalities also collect data.

3.1.1. National Data

American Water Works Association (AWWA)². Maddaus, L.A., and W.O. Maddaus. *Quantifying the Benefits from Federal Plumbing Efficiency Standards*. June 1, 2001. (Last accessed October 16, 2006.) <http://www.techstreet.com/cgi-bin/detail?product_id=925067> Web page describes this report on a nationwide survey of water utilities performed to gather information on the value of the national plumbing standards enacted via the U.S. Energy Policy Act of 1992. Report can be ordered or downloaded for a fee. American Water Works Association: Washington, D.C.

U.S. Geological Survey (USGS). Hutson, S.S., N.L. Barber, J.F. Kenny, K.S. Linsey, D.S. Lumia, and M.A. Maupin. *Estimated Use of Water in the United States in 2000*. Released March 2004; most recent revision February 7, 2005. (Last accessed September 28, 2006.) U.S. Geological Survey: Reston, VA. USGS Circular 1268; 15 figures, 14 tables. Various tables and sections, including the following.

USGS1. Table 5: Public supply water withdrawals, 2000.
<<http://pubs.usgs.gov/circ/2004/circ1268/htdocs/table05.html>>

USGS2. Table 6: Self-supplied domestic water withdrawals, 2000.
<<http://pubs.usgs.gov/circ/2004/circ1268/htdocs/table06.html>>

USGS3. Table 7: Irrigation water withdrawals, 2000.
<<http://pubs.usgs.gov/circ/2004/circ1268/htdocs/table07.html>>

USGS4. Table 8: Livestock water withdrawals, 2000.
<<http://pubs.usgs.gov/circ/2004/circ1268/htdocs/table08.html>>

USGS5. Table 9: Aquaculture water withdrawals, 2000.
<<http://pubs.usgs.gov/circ/2004/circ1268/htdocs/table09.html>>

USGS6. Table 10: Industrial self-supplied water withdrawals, 2000.
<<http://pubs.usgs.gov/circ/2004/circ1268/htdocs/table10.html>>

USGS7. Table 11: Mining water withdrawals, 2000.
<<http://pubs.usgs.gov/circ/2004/circ1268/htdocs/table11.html>>

USGS8. Table 12: Thermoelectric power withdrawals, 2000.
<<http://pubs.usgs.gov/circ/2004/circ1268/htdocs/table12.html>>

USGS9. Table 14: Trends in estimated water use in the United States, 1950-2000.
<<http://pubs.usgs.gov/circ/2004/circ1268/htdocs/table14.html>>

USGS10. Introduction. <<http://pubs.usgs.gov/circ/2004/circ1268/htdocs/text-intro.html>>

USGS11. *Estimated Use of Water in the United States—50 Years of Water Use Information: 1950-2000*. (Last accessed September 25, 2006.)
<<http://water.usgs.gov/watuse/50years.html>> Web page provides links to USGS water-use documents, which have been published every 5 years since 1950. U.S. Geological Survey: Reston, VA.

3.1.2. State Data

In addition to reporting national water consumption volumes by use category, the USGS reports consumption volumes for all fifty states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. According to the USGS data, the residents of New Hampshire, Vermont, and Idaho use the greatest quantity of water per person at 33, 34, and 66 gallons per person daily, respectively. Arizona, Tennessee, and Texas use the least at less than 6.5 gallons per person daily.

Greater detail on volumes of water consumed at the state level can be found in a state's annual USGS Water Data Report or in data often maintained by a state's Department of Water Resources or similar body. Although most states have a water resources or planning governing body, few states collect consumption data and provide it on-line.

California Department of Water Resources (CDWR)5. *California Water Plan Update 2005*. December 2005. (Last accessed November 7, 2006.)
<<http://www.waterplan.water.ca.gov/cwpu2005/index.cfm>> Web page has links to five volumes and their chapters, including Volume I, Chapter 3: California Water Today (52 pp., 4.17 MB). California Department of Water Resources, Planning and Local Assistance: Sacramento, CA. Bulletin 160-05.

California Department of Water Resources. *California Land and Water Use: Urban Water Use*. (Last accessed September 26, 2006.)
<<http://www.landwateruse.water.ca.gov/annualdata/urbanwateruse/urbanlevels.cfm>>
California Department of Water Resources, Planning, and Local Assistance: Sacramento, CA. Web page has links to several topics. Links bring up new pages that enable the user to access data by year. Listed topics are as follows.

CDWR6. Water use by customer class.
<<http://www.landwateruse.water.ca.gov/annualdata/urbanwateruse/years.cfm?use=6>>

CDWR7. Source of supply.

<<http://www.landwateruse.water.ca.gov/annualdata/urbanwateruse/years.cfm?use=7>>

CDWR8. Indoor/outdoor split.

<<http://www.landwateruse.water.ca.gov/annualdata/urbanwateruse/years.cfm?use=8>>

CDWR9. Population.

<<http://www.landwateruse.water.ca.gov/annualdata/urbanwateruse/years.cfm?use=9>>

USGS12. *Consumptive Use and Renewable Water Supply, by Water-Resources Region*. 1984. (Last accessed September 25, 2006.) <<http://water.usgs.gov/watuse/misc/consuse-renewable.html>> Web page has annotated map plus discussion, both updated using 1995 estimates of water use. U.S. Geological Survey: Reston, VA.

USGS13. Fanning, J.L. *Water Use in Georgia by County for 2000 and Water-Use Trends for 1980-2000*. 2003. (Last accessed September 25, 2006.)

<<http://ga.water.usgs.gov/pubs/other/ggs-ic106/>> Web page provides abstract, table of contents, and link to PDF file of report: 176 pp., 12.5 MB. Georgia Department of Natural Resources: Atlanta, GA. Georgia Geologic Survey Information Circular 106.

Georgia Environmental Protection Division (GAEPD)1. *Georgia Statewide Water Planning: Minimizing Withdrawals*. (Last accessed September 26, 2006.)

<<http://www.gadnr.org/gswp/Documents/withdrawals.html>> Web page has links to various topics, including water withdrawals by river basin, status of water use (see GAEPD2), and references. Georgia Department of Natural Resources, Environmental Protection Division, Georgia's Statewide Water Planning: Atlanta, GA.

GAEPD2. *Status of Georgia Water Use*. January 17, 2006. (Last accessed September 26, 2006.) <http://www.gadnr.org/gswp/Files_PDF/Status_of_Water_Use.pdf> Direct link to PDF file of Discussion Packet for Comprehensive Statewide Water Planning: 3 pp., 44.69 KB. Georgia Department of Natural Resources, Environmental Protection Division, Georgia's Statewide Water Planning: Atlanta, GA.

Lone Star Chapter, Sierra Club (LSSC)1. *Facts about Texas Water*. January 2003. (Last accessed September 26, 2006.) <<http://www.texas.sierraclub.org/press/facts.asp>> Web page has links to PDF files of various sections of the book, including Section III, which contains a chart titled Water Use by County. Sierra Club, Lone Star Chapter: Austin, TX

Texas Water Development Board (TWDB)1. Pittman, E.G.R., Chairman; L.J. Hunt, Vice-Chairman; and Members J.E. Herring, W.W. Meadows, T.W. Labatt III, and D.V. Guerra Jr. *2007 Draft State Water Plan (Water for Texas, 2007)*. August 2006. (Last accessed September 26, 2006.)

<http://www.twdb.state.tx.us/publications/reports/State_Water_Plan/2007/Draft_2007S>

[WP.htm](#)> Web page has a brief description plus links to PDF files of the volumes, chapters, and appendixes for the plan, including Volume I (Highlights of the Plan), and Volume II, the plan itself. Texas Water Development Board: Austin, TX.

3.1.3. Regional Data

East Bay Municipal Utility District (EBMUD)1. *Urban Water Management Plan 2005*. November 2005. (Last accessed September 27, 2006.)

<http://www.ebmud.com/water_&_environment/water_supply/urban_water_management_plan/2005_uwmp/default.htm> Web page has links to PDF files of six chapters and various appendixes of report, including Chapter 4, Water Demand: 8 pp., 648 KB. East Bay Municipal Utility District, Water Resources Planning Division: Oakland, CA.

USGS17. Tessler, S. *Data Model and Relational Database Design for the New England Water-Use Data System (NEWUDS)*. 2002. (Last accessed October 21, 2006.)

<<http://pubs.usgs.gov/of/2001/ofr01359/index.html>> Web page has abstract plus access to PDF files of report and ZIP files of the water-use database. Data are related to (1) types of water-use activities (withdrawals, returns, transfers, distributions, consumptive-use, wastewater collection, and treatment); (2) the description, classification, and location of places and organizations involved in water-use activities; (3) measured or estimated volumes of water associated with water-use activities; and (4) information about data sources and water resources associated with water use. USGS Open-File Report 01-359, 70 pp., 1 plate, 2 appendixes.

USGS18. Vaccaro, J.J., and S.S. Sumioka. *Estimates of Groundwater Pumpage from the Yakima River Basin Aquifer System, Washington, 1960-2000*. Last updated September 18, 2006. (Last accessed October 29, 2006.) <<http://pubs.usgs.gov/sir/2006/5205/>> Web page enables user to download PDF files of sections, figures, tables, or the entire report (7.07 MB). The quantities of groundwater pumped from more than 3,000 wells were estimated for eight categories of water use. Prepared in cooperation with the Bureau of Reclamation, Washington State Department of Ecology, and Yakama Nation. USGS Washington Water Science Center: Tacoma, WA. USGS Scientific Investigations Report 2006-5205.

3.1.4. Municipal Data

NYCDEP3. *New York City's Water Supply System: Current System Status*. (Last accessed September 27, 2006.) <<http://www.nyc.gov/html/dep/html/current.html>> Web page shows current water system and reservoir storage and has various links, including one for History of Drought and Water Consumption in the city. City of New York Department of Environmental Protection: Flushing, NY.

Alan Plummer Associates, Inc. (PLU)1. McDonald, B.K., and S. J. Coonan. *Evaluation of Peak-Day Water Conservation Strategies for the City of Austin 2007-2015*. July 12, 2006. (Last Accessed September 27, 2006.)

<<http://www.ci.austin.tx.us/watercon/downloads/Conservation%20Strategies%20final%20draft.pdf>> Direct link to PDF file of Draft Technical Memorandum prepared for the City

of Austin Conservation Division: 61 pp. Alan Plummer Associates, Inc.: Austin, TX. Project 382-1701. This report presents results of the study of the demand impact of water conservation and reuse. Results include historical peak demand, projected demand, and water losses. The City of Austin's water conservation plan contains summer seasonal usage for 2000 and a sectoral breakdown of peak month water use for 2003.

3.2. Water-Using Products

This section describes sources for data on water-consuming products, including end-use data and product performance lists.

3.2.1. End-Use Data

Aquacraft, Inc. (AQUA)¹ and American Water Works Association Research Foundation (AwwaRF). *Residential Water Use Summary*. 1999. (Last accessed September 27, 2006.) <<http://www.aquacraft.com/Publications/resident.htm>> Summary description of *Residential End Uses of Water*, a report available from AWWA. Aquacraft, Inc.: Boulder, CO; and American Water Works Association Research Foundation: Littleton, CO.

AQUA2. *Commercial and Institutional End Uses of Water*. Project completed in 2000. (Last accessed September 27, 2006.) <<http://www.aquacraft.com/Publications/pub%20download.htm>> Web page has links to various publications, including this PowerPoint presentation by P. Mayer of Aquacraft: 25 slides, 2.05 MB. Aquacraft, Inc.: Boulder, CO.

AQUA3. DeOreo, W.B., and P.W. Mayer. *The End-Uses of Hot Water in Single-Family Homes from Flow Trace Analysis*. Data collected in late 1999. (Last accessed September 28, 2006.) <<http://www.aquacraft.com/Publications/hotwater.htm>> Web page provides abstract of report and link to PDF file: 11 pp., 176.49 KB. Aquacraft, Inc.: Boulder, CO.

AQUA9. *Demonstration of Water Conservation Opportunities in Urban Supermarkets*. September 12, 2003. Aquacraft, Inc.: Boulder, CO.

AQUA7. *Post-Drought Changes in Residential Water Use*. February 2006. Aquacraft, Inc.: Boulder, CO.

American Water Works Association (AWWA)¹. *Water Use Statistics*. 2006. (Last accessed September 27, 2006.) <<http://www.drinktap.org/consumerdnn/Home/WaterInformation/Conservation/WaterUseStatistics/tabid/85/Default.aspx>> Web page is that of Drinktap.org, AWWA's consumer information vehicle. Page describes water consumption and conservation potential by end use. American Water Works Association: Washington, D.C.

American Water Works Association Research Foundation (AwwaRF)¹. *Residential End Uses of Water (REUWS)*. 1999. (Last accessed September 27, 2006.) <<http://www.awwa.org/bookstore/ProductList.cfm?SearchString=end+uses+of+water>>

Report can be ordered through AWWA. American Water Works Association Research Foundation: Littleton, CO. ISBN 1583210164; 310 pp.

AwwaRF2. Dziegielewski, B., J.C. Kiefer, E.M. Opitz, G.A. Porter, G.L. Lantz, W.B. DeOreo, P.W. Mayer, and J.O. Nelson. *Commercial and Institutional End Uses of Water (CIEUWS)*. 2000. American Water Works Association Research Foundation: Littleton, CO. Unlike REUWS, this report is not sold via the AWWA site. But AQUA2 is a PowerPoint presentation on the topic.

FISH1. Fisher, D. Energy & Water Savings Potential in Commercial Food Service. February 2006. (Last accessed September 28, 2006.)

<<http://www.awwa.org/waterwiser/references/Sources2006.cfm>> Web page has links to presentation made at the American Water Works Association's *Water Sources 2006* in Albuquerque, NM, including this one by D. Fisher, Manager of Pacific Gas and Electric Company's Food Service Technology Center (FSTC) in San Ramon, CA: 43 PowerPoint slides; 1.41 MB. These slides describe the FSTC and their ASTM testing of steamers, ice makers, and pre-rinse sprayers. American Water Works Association, WaterWiser, the Water Efficiency Clearinghouse: Denver, CO.

GAEPD3. *Conserve Water Georgia: Water Use and Conservation Facts*. 2003. (Last accessed September 26, 2006.)

<<http://www.conservewatergeorgia.net/Documents/facts.html>> Web page discusses topics such as water use for public supply, irrigation, and power generation and has links for various users. Georgia Department of Natural Resources, Environmental Protection Division, Water Conservation Clearinghouse: Atlanta, GA.

GDS Associates (GDSA)1. *Texas Water Development Board Study (Regarding the Effectiveness and Costs of Various Water Conservation Strategies in Texas)*. March 2002. (Last accessed September 26, 2006.)

<<http://www.twdb.state.tx.us/assistance/conservation/GDSReport.pdf>> Direct link to PDF file of report: 40 pp., 117.5 KB. Prepared by GDS Associates, Inc., for Texas Water Development Board: Austin, TX.

NMOSE2. Schultz Communications. *New Mexico Water Conservation Program*. (Last accessed September 28, 2006.) <<http://www.ose.state.nm.us/water-info/conservation/h2o-outreach.html>> Web page provides links to numerous resources, including A Water Conservation Guide for Commercial, Institutional, and Industrial Users, prepared by Schultz Communications of Albuquerque, NM. July 1999. 108 pp., 2.13 MB. New Mexico Office of the State Engineer, Water Use and Conservation Bureau: Santa Fe, NM.

Pacific Institute (PI)1. Gleick, P., D. Haasz, C. Henges-Jeck, V. Srinivasan, G. Wolff, K. K. Cushing, and A. Mann. *Waste Not, Want Not: The Potential for Urban Water Conservation in California*. November 2003. (Last accessed September 28, 2006.)

<www.pacinst.org/reports/urban_usage/> Web page describes the report and has links to

summary materials or the entire report: 176 pp., 1.4 MB. Pacific Institute: Oakland, CA. ISBN No. 1-893790-09-6.

AQUA4. Mayer, P.W., W.B. DeOreo, and D.M. Lewis. *Pinellas County Utilities Water Conservation Opportunities Study*. February 26, 2003. Aquacraft, Inc.: Boulder, CO.

AQUA10. Mayer, P.W., W.B. DeOreo, E. Towler, and D.M. Lewis. *Residential Indoor Water Conservation Study: Evaluation of High-Efficiency Indoor Plumbing Fixture Retrofits in Single-Family Homes in the East Bay Municipal Utility District Service Area*. July 2003. (Last accessed September 28, 2006.)
<http://www.ebmud.com/about_ebmud/publications/technical_reports/residential_indoor_wc_study.pdf> Direct link to PDF file of report: 192 pp., 2.01 MB. Prepared for the East Bay Municipal Utility District and the U.S. Environmental Protection Agency by Aquacraft, Inc.: Boulder, CO.

Burton & Associates (BURT)1 in association with PBS&J and GDS Associates. *Potential Water Savings of Conservation Techniques*. November 8, 2004. (Last accessed September 29, 2006.)
<<http://sjr.state.fl.us/programs/outreach/pubs/techpubs/pdfs/SP/SJ2006-SP13.pdf>> Direct link to PDF file of report: 354 pp., 2.08 MB. Prepared for the St. Johns River Water Management District: Palatka, FL. Special Publication SJ2006-SP-13.

EBMUD1. *Urban Water Management Plan 2005*. November 2005. (Last accessed September 27, 2006.)
<http://www.ebmud.com/water_&_environment/water_supply/urban_water_management_plan/2005_uwmp/default.htm> Web page has links to PDF files of six chapters and various appendixes of report, including Chapter 4, Water Demand: 8 pp., 647 KB. East Bay Municipal Utility District, Water Resources Planning Division: Oakland, CA.

Pollution Prevention International, Inc. (PPI)1. *Commercial, Institutional, and Industrial Water Use Survey Program: Final Report*. March 25, 2004. (Last accessed September 26, 2006.)
<http://www.cuwcc.org/uploads/tech_docs/CII_H2OUse_Survey_Prgm_Final_Rpt_04-05-25.pdf> Direct link to PDF file of report: 48 pp., 444 KB. Prepared for the Santa Clara Valley Water District by Pollution Prevention International, Inc.: Irvine, CA.

Post, Buckley, Schuh and Jernigan, Inc. (PBS&J)1, in association with Burton & Associates, Inc. *Water Supply Needs and Sources Assessment—Alternative Water Supply Strategies Investigation: Assessment of the Cost-Effectiveness of Specific Water Conservation Practices*. 1999. (Last accessed September 29, 2006.)
<<http://sjr.state.fl.us/programs/outreach/pubs/techpubs/pdfs/SP/SJ99-SP4.pdf>> Direct link to PDF file of report: 199 pp., 6.14 MB. Prepared for the St. Johns River Water Management District: Palatka, FL. Special Publication SJ99-SP4.

SEA2. Dietemann, A. *A Peek at the Peak: Case Study: Reducing Seattle's Peak Water Demand*. February 9, 1998. Seattle Public Utilities: Seattle, WA.

AQUA5. Mayer, P.W., W.B. DeOreo, and C. Iadarola. *Water Use in New Single-Family Housing in the City of Westminster, Colorado*. February 15, 2000. Aquacraft, Inc.: Boulder, CO; and AquaSan Network, Inc.: Littleton, CO.

AQUA6. *Comparison of Demand Patterns among Residential and CI Customers in Westminster, Colorado*. July 1998. Aquacraft, Inc.: Boulder, CO.

AQUA8. *Conservation Plan for Industrial, Commercial, and Irrigation Water Customers in Westminster, Colorado*. March 2001. Aquacraft, Inc., and Stratus Consulting: Boulder, CO.

AQUA11. Mayer, P.W., W.B. DeOreo, and D.M. Lewis. *Seattle Home Water Conservation Study: The Impacts of High-Efficiency Plumbing Fixture Retrofits in Single-Family Homes*. December 2000. (Last accessed September 28, 2006.) <http://www.cuwcc.org/Uploads/product/Seattle_Final_Report_Dec-2000.pdf> Direct link to PDF file of report: 170 pp., 1.85 MB. Submitted to Seattle Public Utilities and the U.S. Environmental Protection Agency by Aquacraft, Inc.: Boulder, CO.

AQUA12. Mayer, P.W., W.B. DeOreo, E. Towler, L. Martien, and D.M. Lewis. *Tampa Water Department Residential Water Conservation Study: The Impacts of High-Efficiency Plumbing Fixture Retrofits in Single-Family Homes*. January 8, 2004. (Last accessed September 29, 2006.) <http://www.tampagov.net/dept_Water/conservation_education/pdf/Research%20Project%20Tampa%20Retrofit%20Final%20Report.pdf> Direct link to PDF file of report: 211 pp., 1.85 MB. Submitted to the Tampa Water Department and the U.S. Environmental Protection Agency by Aquacraft, Inc.: Boulder, CO.

3.2.2. Product Performance Lists

Air-Conditioning and Refrigeration Institute (ACRI)1. *Directory of Certified Automatic Commercial Ice-Cube Machines and Ice Storage Bins (810/820)*. Updated August 24, 2006: Issue 2. (Last accessed September 29, 2006.)

<<http://www.aridirectory.org/ari/supplemental/acim/>> Web page has link to PDF file of directory: 34 pp., 482 KB. Air-Conditioning and Refrigeration Institute: Arlington, VA.

Consortium for Energy Efficiency (CEE)2. *Qualifying Products—Commercial Ice-Makers*. Updated August 4, 2006. (Last accessed September 29, 2006.)

<<http://www.cee1.org/com/com-ref/im-prod.pdf>> Direct link to PDF file of list: 5 pp., 70.5 KB. Consortium for Energy Efficiency, Commercial Kitchens Initiative: Boston, MA.

U.S. Census Bureau (CEN)1. *Manufacturing, Mining, and Construction Statistics: Current Industrial Reports*. Last revised August 11, 2006. (Last accessed September 29, 2006.) <<http://www.census.gov/cir/www/alpha.html>> Web page has links to reports on various sectors, including Plumbing Fixtures (Discontinued) - MQ332E, which brings up

a page that has links to PDF files of summaries for 1997 through 1999. U.S. Census Bureau, Manufacturing and Construction Division: Washington, D.C.

Consumers Union of U.S., Inc. (CU). *Consumer Reports*. Consumers Union of United States, Inc.: Yonkers, NY. The following are references to various issues. Subscribers also can consult <<http://www.consumerreports.org/>> to utilize a search ability and links to articles and product ratings.

CU1. Washers & Dryers: Savings at a Price. March 2006. 71(3): pp. 43-47; June 2007

CU2. Dishwashers. August 2006. 71(8): p. 36.

CU3. Toilets: Comfortable and Efficient. August 2005. 70(8): pp. 33-35.

CU4. Showerheads: Go for the Flow. August 2005. 70(8): pp. 30-32.

CU5. Faucets. August 2002. 67(8): p. 31.

CU6. Whirlpool Tubs: First-class Economy. August 2005. 70(8): pp. 28-29.

California Urban Water Conservation Council (CUWCC)1. *High-Efficiency Toilets (HETs): What is an HET?* Revised and updated September 18, 2006. (Last accessed October 3, 2006.) <http://www.cuwcc.org/Uploads/product/HET_06-09-18.pdf> Direct link to PDF file that describes and lists HETs: 4 pp., 182 KB. California Urban Water Conservation Council: Sacramento, CA.

U.S. Environmental Protection Agency (EPA)7. *ENERGY STAR Qualified Dishwashers*. Updated October 6, 2006. (Last accessed October 17, 2006.) <http://www.energystar.gov/index.cfm?fuseaction=dishwash.display_products_html> Web page presents table of qualified dishwashers by brand and model, noting energy performance. U.S. Environmental Protection Agency and U.S. Department of Energy, ENERGY STAR Program: Washington, D.C.

EPA8. *ENERGY STAR Qualified Clothes Washers*. Updated September 12, 2006 (Last accessed September 30, 2006.) <http://www.energystar.gov/index.cfm?fuseaction=clotheswash.display_products_html> Web page presents table of qualified clothes washers by brand and model, noting energy and water performance. U.S. Environmental Protection Agency and U.S. Department of Energy, ENERGY STAR Program: Washington, D.C.

EPA9. *ENERGY STAR Qualified Steam Cookers as of September 26, 2006*. (Last accessed October 17, 2006.) <http://www.energystar.gov/ia/products/prod_lists/Steamers_prod_list.pdf> Direct link to PDF file of table of qualified steam cookers by brand and model, noting energy performance: 3 pp., 378.44 KB. U.S. Environmental Protection Agency and U.S. Department of Energy, ENERGY STAR Program: Washington, D.C.

International Association of Plumbing and Mechanical Officials (IAPMO)1. *Product Listing Directory*. (Last accessed October 2, 2006.) <<http://pld.iapmo.org/>> Directory provides lists of products that IAPMO has tested and certifies as meeting national or international standards, such as ISO 9000. International Association of Plumbing and Mechanical Officials: Ontario, CA.

National Association of Home Builders Research Center (NAHBRC)1. *Water Closet Performance Testing*. September 2002. (Last accessed October 2, 2006.) <http://savingwater.org/docs/NAHB_ToiletReport.pdf> Direct link to PDF file of report: 30 pp., 273 KB. Prepared for Seattle Public Utilities and the East Bay Municipal Utility District by the National Association of Home Builders Research Center: Upper Marlboro, MD. Report No. P01-1660902. Also available from Saving Water Partnership: <http://savingwater.org/inside_bathroom.htm>

Natural Resources Canada (NRCAN)1. *Energy Efficiency Ratings: Dishwashers*. Last updated August 21, 2006. (Last accessed September 30, 2006.) <<http://oee.nrcan.gc.ca/energystar/english/consumers/dishwashers-search.cfm>> Web page provides ability to search for energy efficiency information on dishwashers by brand, model, or type. Natural Resources Canada, Office of Energy Efficiency: Ottawa, Ontario.

NRCAN2. *Energy Efficiency Ratings: Clothes Washers*. Updated August 21, 2006. (Last accessed September 30, 2006.) <<http://oee.nrcan.gc.ca/energystar/english/consumers/clothes-washers-search.cfm>> Web page enables user to search for energy efficiency information on clothes washers by brand, model, or type. Natural Resources Canada, Office of Energy Efficiency: Ottawa, Ontario.

NRCAN3. *Energy Efficiency Ratings: Clothes Washer-Dryers*. Last updated August 21, 2006. (Last accessed September 30, 2006.) <<http://oee.nrcan.gc.ca/energystar/english/consumers/clothes-washers-dryers-search.cfm>> Web page enables user to search for energy efficiency information on clothes washer-dryers by brand, model, or type. Natural Resources Canada, Office of Energy Efficiency: Ottawa, Ontario.

Veritec Consulting, Inc., and Koeller and Company (VERI)1. *Maximum Performance (MaP) Testing of Popular Toilet Models: A Cooperative Canadian and American Project*. 7th Edition, July 7, 2006. (Last accessed October 2, 2006.) <<http://www.cuwcc.org/MapTesting.lasso>> Web page has brief description and link to PDF file of report: 28 pp., 4.72 MB. Veritec Consulting, Inc.: Mississauga, Ontario; and Koeller and Company: Yorba Linda, CA.

VERI2. Veritec Consulting, Inc., and Koeller and Company. *Maximum Performance (MaP) of UNAR-Qualified Conventional Toilet Fixtures*. Revised August 15, 2006. (Last accessed October 16, 2006.)

<http://www.cuwcc.org/Uploads/product/UNAR_qualified_toilet_models_06-08-15.pdf>
Direct link to PDF file of list: 3 pp., 55.76 KB. Veritec Consulting, Inc.: Mississauga, Ontario, and Koeller and Company: Yorba Linda, CA.

VERI3. Veritec Consulting, Inc., and Koeller and Company. *Maximum Performance (MaP) of UNAR-Qualified High-Efficiency Toilet (HET) Models (> 350g only)*. Revised September 8, 2006. (Last accessed October 16, 2006.)
<http://www.cuwcc.org/Uploads/product/UNAR_HET_350_06-09-08.pdf> Direct link to PDF file of list: 2 pp., 51.29 KB. Veritec Consulting, Inc.: Mississauga, Ontario, and Koeller and Company: Yorba Linda, CA.

California Energy Commission (CEC). *California Energy Commission Appliances Database*. (Last accessed October 2, 2006.)
<<http://www.energy.ca.gov/appliances/appliance/>> California Energy Commission: Sacramento, CA. Web page has link to index of Microsoft Excel-based ZIP files that provide performance data for appliances that manufacturers have certified as meeting currently applicable efficiency standards. Appliances include the following.

CEC1. Non-commercial clothes washers. (Last updated July 27, 2006.)
<http://www.energy.ca.gov/appliances/appliance/excel_based_files/clothes_washers/>

CEC2. Commercial clothes washers. (Last updated July 27, 2006.)
<http://www.energy.ca.gov/appliances/appliance/excel_based_files/clothes_washers/>

CEC3. Dishwashers. (Last updated November 5, 2004)
<http://www.energy.ca.gov/appliances/appliance/excel_based_files/dishwashers/>

CEC4. Kitchen faucets. (Listed under Plumbing Fittings—Faucets; last updated April 10, 2006.)
<http://www.energy.ca.gov/appliances/appliance/excel_based_files/plumbing/>

CEC5. Lavatory faucets. (Listed under Plumbing Fittings—Faucets; last updated April 10, 2006.)
<http://www.energy.ca.gov/appliances/appliance/excel_based_files/plumbing/>

CEC6. Metering faucets. (Listed under Plumbing Fittings—Faucets; last updated April 10, 2006.)
<http://www.energy.ca.gov/appliances/appliance/excel_based_files/plumbing/>

CEC7. Wash fountains. (Listed under Plumbing Fittings—Faucets; last updated April 10, 2006.)
<http://www.energy.ca.gov/appliances/appliance/excel_based_files/plumbing/>

CEC8. Replacement aerators. (Listed under Plumbing Fittings—Faucets; last updated April 10, 2006.)

<http://www.energy.ca.gov/appliances/appliance/excel_based_files/plumbing/>

CEC9. Showerheads. (Listed under Plumbing Fittings—Non-Faucets; last updated April 10, 2006.)

<http://www.energy.ca.gov/appliances/appliance/excel_based_files/plumbing/>

CEC10. Tub spout diverters. (Listed under Plumbing Fittings—Non-Faucets; last updated April 10, 2006.)

<http://www.energy.ca.gov/appliances/appliance/excel_based_files/plumbing/>

CEC11. Commercial pre-rinse spray valves. (Listed under Plumbing Fittings—Non-Faucets; last updated April 10, 2006.)

<http://www.energy.ca.gov/appliances/appliance/excel_based_files/plumbing/>

CEC12. Toilets. (Listed as water closets under Plumbing Fixtures; last updated April 10, 2006.)

<http://www.energy.ca.gov/appliances/appliance/excel_based_files/plumbing/>

CEC13. Urinals. (Listed under Plumbing Fixtures; last updated April 10, 2006.)

<http://www.energy.ca.gov/appliances/appliance/excel_based_files/plumbing/>

CEC14. Portable electric spas. (Last updated September 21, 2006.)

<http://www.energy.ca.gov/appliances/appliance/excel_based_files/pool_products/>

CEC15. Hot water dispensers. (Last updated July 19, 2006.)

<http://www.energy.ca.gov/appliances/appliance/excel_based_files/>

CEC16. Evaporative coolers. (Listed under Non-Central Air; last updated May 4, 2006.)

<http://www.energy.ca.gov/appliances/appliance/excel_based_files/non_central_a_ir/>

Fisher Nickel Inc. (FISH)1. *Commercial Ice Machines: Qualified Energy-Efficient Ice Machines*. Updated September 15, 2006. (Last accessed October 3, 2006.) <<http://www.fishnick.com/saveenergy/rebates/ice/>> Web page provides brief description and link to PDF file: 5 pp., 28.68 KB. Food Service Technology Center: San Ramon, CA.

FISH2. *Energy-Efficient Steamers*. Updated September 15, 2006. (Last accessed October 3, 2006.) <<http://www.fishnick.com/saveenergy/rebates/steamers/>> Web page has brief description and link to PDF file: 2 pp., 14.6 KB. Food Service Technology Center: San Ramon, CA.

FISH3. *Low-Flow Pre-rinse Spray Valves*. (Last accessed October 3, 2006.) <<http://www.fishnick.com/saveenergy/sprayvalves/>> Web page has table showing water, wastewater, gas, and dollar savings from low-flow valves, plus links to information on models FSTC has approved. Food Service Technology Center: San Ramon, CA.

EBMUD4. *WaterSmart High-Efficiency Toilet Rebate Program: List of Qualifying Toilets*. Effective October 1, 2006 (updated quarterly). (Last accessed October 3, 2006.) <http://www.ebmud.com/conserving_&_recycling/residential/toilet_replacement_rebate/default.htm> Web page has brief description of rebate program and link to PDF brochure with list: 2 pp., 527.06 KB. East Bay Municipal Utility District: Oakland, CA.

Metropolitan Water District of Southern California (MWDSC)1. Principal contributors: Webster, H.O. III, W.P. McDonnell, and J.M. Koeller. *After-Market Toilet Flappers: A Study of Compatibility and Flush Volumes*. November 1998. (Last accessed October 3, 2006.) <http://www.cuwcc.org/uploads/product/Toilet_Flappers_After_Market_1998.pdf> Direct link to PDF file of report: 48 pp., 2.07 MB. Metropolitan Water District of Southern California: Los Angeles, CA.

MWDSC3. *Current List of Qualifying Washers*. August 30, 2006. (Last accessed October 3, 2006.) <<http://www.bewaterwise.com/rebates05.html>> Web page has link to PDF list of clothes washers that qualify for rebates based on information compiled from CUWCC, CEE, and ENERGY STAR: 3 pp., 303.14 KB. Metropolitan Water District of Southern California: Los Angeles, CA.

MWDSC4. *Dramatically Improve Your Restaurant's Profitability*. (Last accessed June 5, 2007) <<http://www.mwdsaveabuck.com/restaurantpackages.htm>> Web page lists items that qualify for rebates: pressurized waterbrooms, ultra low-flush toilets, and pre-rinse kitchen sprayers. It also has a link to a page titled Rebates, which describes rebates for these and other items, such as irrigation controls and food steamers. The pages specify the standard of performance the items must meet and contact information or links for determining qualifying products. Metropolitan Water District of Southern California, Save Water - Save a Buck Program: Los Angeles, CA.

MWDSC5. *Smart Sprinkler Controllers*. (Last accessed October 5, 2006.) <<http://www.bewaterwise.com/rebates02.html#Anchor-49575>> Web page describes rebate program, lists the manufacturers that make smart controllers, and provides a link to a list of providers. Metropolitan Water District of Southern California: Los Angeles, CA.

Saving Water Partnership (SWP)1. *FlushStar*. September 2006. (Last accessed September 29, 2006.) <<http://www.savingwater.org/docs/FlushStar.pdf>> Direct link to PDF file: 1 p., 45.7 KB. File contains list of toilets that use 20 percent less water than standard models and have proven effective without double-flushing. Saving Water Partnership: Seattle and King County, WA.

TAM5. *All the Flap on the Flapper*. (Last accessed October 5, 2006.)
<<http://www.toiletflapper.org/indexb.asp>> Web page provides general information on toilet flappers and links to both How to Replace a Flapper and Find your Toilet Flapper Here. Link brings up a PDF file titled, Toilet Manufacturer, Model, and Flapper Replacement Information as of October 1, 2003: 10 pp., 239.44 KB. Tampa Bay Water: Clearwater, FL.

AUS5. *Water Conservation Program: Toilets Eligible for Rebate*. Updated August 25, 2006. (Last accessed October 5, 2006.)
<<http://www.ci.austin.tx.us/watercon/toiletrebate.htm>> Web page contains description of program and list of qualifying toilets. City of Austin Water Conservation Program: Austin, TX.

3.3. Other Water Data Sets

This section describes data pertaining to water supply, wastewater, water quality, and watersheds. Finally, sources of general information are given. Note that our efforts did not focus on obtaining sources of data on any of these topics.

3.3.1. Water Supply

USGS19. *Water Resources of the United States*. (Last accessed October 14, 2006.)
<<http://water.usgs.gov/>> This home Web page has menu links to data, maps, software, and publications, plus in-page links to topics such as the Water Resources Program and the NWIS-Web Water Data. The user may also search for water data by state. U.S. Geological Survey: Reston, VA.

U.S. Environmental Protection Agency (EPA)1. *Drinking Water Data & Databases*. (Last accessed October 5, 2006.) <<http://www.epa.gov/safewater/databases.html>> Web page has links to various resources, including the Safe Drinking Water Information System-Federal Version (SDWIS/FED) and State Version (SDWIS/State), Drinking Water Research Information Network (DRINK), Watershed Information Network (WIN), and Index of Watershed Indicators (IWI). U.S. Environmental Protection Agency: Washington, D.C.

International Boundary and Water Commission (IBWC)1. *Rio Grande Flow Conditions*. Last update October 27, 2006. (Last accessed October 29, 2006.)
<http://www.ibwc.state.gov/html/rio_grande.html> Page has links to flow conditions (updated daily, Monday through Friday), reservoir storage, real-time stream flow data, historical flows, and weekly data sheets. The commission comprises a Mexican section and a United States section. United States Section, International Boundary and Water Commission: El Paso, TX.

USGS14. *National Water Information System: Web Interface*. (Last accessed October 5, 2006.) <<http://nwis.waterdata.usgs.gov/nwis/>> Web page has links to real-time, daily, monthly, and annual data, as well as to results of field and laboratory testing. Page

includes a link to the EPA STORET database (reference EPA3). U.S. Geological Survey, National Water Information System, Web Interface: Reston, VA.

U.S. Geological Survey (USGS) Water Science Center. The USGS operates Water Science Centers (WSCs) in 48 states or regions. Web pages for the WSCs provide various types of information, which generally includes links to the National Water Information System (NWIS) Web Interface for real-time data on stream flows, water levels, groundwater, and water quality. Almost all WSC Web sites offer links to projects, programs, publications, and news or event listings. Some also include links to the National Streamflow Information Program (NSIP) or the Groundwater Climate Response Network. The Web page for each WSC also generally includes a link to current and historical data, including the state's Water Data Reports for various years. Only atypical features of the WSC Web sites are noted in the following citations.

USGS25. *USGS Alabama Water Science Center.* (Last accessed October 26, 2006.) <<http://al.water.usgs.gov/>> Page includes links to the National Streamflow Information Program (NSIP), National Water-Quality Assessment (NAWQA) programs, the Groundwater Climate Response Network, and a geospatial program liaison. USGS Alabama Water Science Center: Montgomery, AL.

USGS26. *USGS Alaska Science Center: Water Resources.* Last modified August 30, 2006. (Last accessed October 21, 2006.) <<http://alaska.usgs.gov/science/water/index.php>> Page includes links to information on glaciers and water data reports for 2000-2005. USGS Alaska Science Center, Office of Water Resources: Anchorage, AK. (Dup. Quality)

USGS27. *USGS Arizona Water Science Center.* (Last accessed October 23, 2006.) <<http://az.water.usgs.gov/>> Page has links to current and historical hydrologic conditions, drought conditions for selected drainage basins, and water data for 2005 in interactive format (data retrievable by basin) or via link to the USGS publication. USGS Arizona Water Science Center: Tucson, AZ.

USGS28. *USGS Water Resources of Arkansas.* (Last accessed October 19, 2006.) <<http://ar.water.usgs.gov/>> Page includes links to NAWQA data, acid rain data, interactive maps showing hydrologic conditions, and Annual Data Reports 2003-2005. USGS Arkansas Water Science Center: Little Rock, AR.

USGS29. *USGS California Water Science Center.* (Last accessed October 20, 2006.) <<http://ca.water.usgs.gov/>> Page includes a link to Annual Archives, which contain links to Water Data Reports, 1994-2005. USGS Water Science Center: Sacramento, CA. (Dup. Quality)

USGS30. *USGS Water Resources of the Caribbean.* (Last accessed October 23, 2006.) <<http://vi.water.usgs.gov/>> Page has links to real-time NWIS data for Puerto Rico, U.S. Virgin Islands, El Salvador, Guatemala, Honduras, Nicaragua, and Haiti. Data are more complete for some locations than for others. There also

is a link to Water Resources Data for 2003. USGS Caribbean Water Science Center: San Juan, Puerto Rico.

USGS31. *USGS Colorado Water Science Center*. Last modified September 7, 2006. (Last accessed October 20, 2006.) <<http://co.water.usgs.gov/>> Page has links to drought watch map, NAWQA programs, snowpack data, and Water Data Reports, 1995-2005. USGS Water Science Center: Lakewood, CO. (Dup. Quality)

USGS32. *USGS Connecticut Water Science Center*. (Last accessed October 20, 2006.) <<http://ct.water.usgs.gov/>> Page includes link to a data page, which has links to historical monthly reports, interactive maps of stations, and Water Data Reports for 2004 and 2005. USGS Connecticut Water Science Center: East Hartford, CT.)

USGS33. *USGS Florida Integrated Science Center*. Last modified September 11, 2006. (Last accessed October 5, 2006.) <<http://fl.water.usgs.gov/>> Page includes links to Florida WaterWatch for droughts, floods, and storms; NAWQA programs; and the states Hydrologic Data Web Portal. Annual Water Data Reports are accessible, but not in a straightforward way. USGS Florida Integrated Science Center: Ft. Lauderdale, FL.

USGS34. *USGS Water Resources of Georgia*. (Last accessed October 20, 2006.) <<http://ga.water.usgs.gov/>> Page has links to a drought watch map, the state's own real-time hydrologic monitoring network (HydroWatch), and real-time data via the Georgia Water Information Network. Data include annual hydrologic summaries by county. Data from summaries for 2004 are accessible by site location or type (e.g., crest-stage monitoring, ecological monitoring). USGS Georgia Water Science Center: Atlanta, GA.

USGS35. *USGS Idaho Water Science Center*. Last modified October 17, 2006. (Last accessed October 24, 2006.) <<http://id.water.usgs.gov/>> Page has link to USGS WDR site for Annual Data Reports. USGS Idaho Water Science Center: Boise, ID.

USGS36. *USGS Water Resources of Illinois*. Last modified October 19, 2006. (Last accessed October 24, 2006.) <<http://il.water.usgs.gov/>> Page includes interactive map for current conditions and links to Groundwater Climate Response Network, drought watch map of state, Annual Data Report, and the Modular Interactive Geographic and Hydrologic Toolbox—Illinois (MIGHTI) Database, under development as of April 11, 2005. USGS Illinois Water Science Center: Urbana, IL.

USGS37. *USGS Water Resources of Indiana*. Last modified September 12, 2006. (Last accessed October 24, 2006.) <<http://in.water.usgs.gov/>> Page includes interactive maps for current conditions plus links for GPS base-station data and NAWQA programs. USGS Indiana Water Science Center: Indianapolis, IN.

USGS38. *USGS Iowa Water Science Center*. (Last accessed October 24, 2006.) <<http://ia.water.usgs.gov/>> Page has interactive map for stream flow data and station information, plus links to Sediment Lab and Water Resources Data for 2005. USGS Iowa Water Science Center: Iowa City, IA.

USGS39. *USGS Kansas Water Science Center*. (Last accessed October 24, 2006.) <<http://ks.water.usgs.gov/>> Page includes interactive map for stream flow conditions, the state's own real-time water quality monitoring data, plus links to the Missouri River Water Information Portal (part of the Missouri River Recovery Program) and Kansas drought and flood watches USGS Kansas Water Science Center: Lawrence, KS.

USGS40. *USGS Kentucky Water Science Center Water Resources Program*. Last modified September 28, 2006. (Last accessed October 24, 2006.) <<http://ky.water.usgs.gov/>> Page has links to sediment laboratory and an online tool to find drainage areas and flow statistics for state streams. USGS Kentucky Water Science Center: Louisville, KY.

USGS41. *USGS Water Resources of Louisiana*. (Last accessed October 24, 2006.) <<http://la.water.usgs.gov/>> Page has links to interactive Amite River basin flood-tracking map, the NAQWA program, the 2005 Annual Data Report, and Louisiana Hydrowatch, the state's link to NWIS data and sources of weather and other information. USGS Louisiana Water Science Center: Baton Rouge, LA.

USGS42. *USGS Maine Water Science Center*. (Last accessed October 20, 2006.) <<http://me.water.usgs.gov/>> Page has links to historical reports of monthly hydrologic conditions, comparison of current with historical stream flow conditions, lake ice-out data for New England, and the 2005 Annual Data Report. USGS Maine Water Science Center: Augusta, ME.

USGS43. *USGS Water Resources for Maryland, Delaware, and Washington, D.C.* (Last accessed October 24, 2006.) <<http://md.water.usgs.gov/>> Page has link to 2005 Water Data Report. USGS Maryland-Delaware-Washington, D.C. Water Science Center: Baltimore, MD.

USGS44. *USGS Massachusetts-Rhode Island Water Science Center*. Last modified October 17, 2006. (Last accessed October 5, 2006.) <<http://ma.water.usgs.gov/>> Page displays reservoir conditions and has links to Groundwater Climate Response Network, drought and flood watch maps, and links to Annual Water Data Reports for 1998-2005 separately for Massachusetts and for Rhode Island. USGS Massachusetts-Rhode Island Water Science Center: Northborough, MA.

USGS45. *USGS Michigan Water Science Center*. (Last accessed October 25, 2006.) <<http://mi.water.usgs.gov/>> Page has links to interactive Web site of

Michigan's groundwater resources and to hydrologic summary for Michigan (e.g., drought and flood watches). No Water Data Report for Michigan is offered on this or the USGS WDR site. USGS Michigan Water Science Center: Lansing, MI.

USGS46. *USGS Water Science Center, Minnesota*. (Last accessed October 25, 2006.) <<http://mn.water.usgs.gov/>> The menu titled *Water Data* offers access to stage-discharge ratings, a watershed tool, and real-time data from the U.S. Army Corps of Engineers and U.S. Weather Service. Annual Water Data Reports are available for 1997-2005, along with unpublished data from 1996-1998. USGS Water Science Center, Minnesota: Mounds View, MN.

USGS47. *USGS Mississippi Water Science Center*. (Last accessed October 25, 2006.) <<http://ms.water.usgs.gov/>> Page has links to the state's own groundwater data and maps (restricted access), coastal water quality and meteorological data, surface water data and maps (under construction), and the state's own flood-tracking system. USGS Mississippi Water Science Center: Jackson, MS.

USGS48. *USGS Missouri Water Science Center*. (Last accessed October 19, 2006.) <<http://mo.water.usgs.gov/>> Page has links to historical water quality data, WaterWatch of current water resources (current versus historical stream flow), surface and groundwater data and analysis, and the Water Resources Data Report for 2005. USGS Missouri Water Science Center: Rolla, MO.

USGS49. *USGS Water Resources of Montana*. (Last accessed October 21, 2006.) <<http://mt.water.usgs.gov/>> Page has links to the Groundwater Climate Response Network, monthly water summary, drought monitoring, data on flood frequency and basin characteristics, and Water Data Reports for 2002-2005. USGS Water Science Center: Helena, MT.

USGS50. *USGS Nebraska Water Science Center*. (Last accessed October 25, 2006.) <<http://ne.water.usgs.gov/index.htm>> Page has a link to the Missouri River Water Information Portal (MORWIP), the product of a multi-state, multi-agency effort to collect and interpret data in support of the Missouri River Recovery Program. There are also links to a drought watch map and to Annual Water Data Reports for 2002-2005. User can request water news and notices by e-mail. USGS Nebraska Water Science Center: Lincoln, NE.

USGS51. *USGS Activities in Nevada: Featured Water Studies*. Last modified June 19, 2006. (Last accessed October 25, 2006.) <<http://nevada.usgs.gov/wateractivities.htm>> USGS Water Resources, Nevada District: Carson City, NV.

USGS52. *USGS Water Resources of New Hampshire and Vermont*. (Last accessed October 20, 2006.) <<http://nh.water.usgs.gov/>> Page displays interactive maps of stream flow and groundwater conditions and has links to monthly summaries of water resources and an on-line newsletter. *Water Data* link brings

up capability to view or print PDF files of Water Data Reports for 1997-2005. USGS New Hampshire-Vermont Water Science Center: Pembroke, NH.

USGS53. *USGS New Jersey Water Science Center*. (Last accessed October 25, 2006.) <<http://nj.usgs.gov/>> Page has link to monthly hydrologic assessments and drought watch page. USGS New Jersey Water Science Center: West Trenton, NJ.

USGS54. *USGS Water Resources of New Mexico*. Last modified August 17, 2006. (Last accessed October 25, 2006.) <<http://nm.water.usgs.gov/>> Page has links to interactive map of current drought conditions. Link to *Water Data* brings up interactive maps of surface and groundwater conditions, plus *Other Lakes and Reservoirs in New Mexico*, by the U.S. Army Corps of Engineers. USGS New Mexico Water Science Center: Albuquerque, NM.

USGS55. *Welcome to the U.S. Geological Survey in New York*. (Last accessed October 20, 2006.) <<http://ny.water.usgs.gov/>> Menu for *Science/Data* includes links to Groundwater Climate Response Network, Monthly Streamflow and Groundwater Conditions reports, acid rain, suspended sediment, and the three volumes of the New York Water Data Report for 2004. USGS, New York District: Troy, NY.

USGS56. *USGS North Carolina Water Science Center*. Last updated October 16, 2006. (Last accessed October 25, 2006.) <<http://nc.water.usgs.gov/>> Page has links to WaterWatch; Groundwater Climate Response Network; peak stage and duration graphs for rivers and streams; and Month-End Conditions Reports, which include compiled data on rainfall, water level hydrographs, stream flow conditions (compared with historical data), and groundwater levels (compared with historical data). USGS North Carolina Water Science Center: Raleigh, NC.

USGS57. *USGS North Dakota Water Science Center*. (Last accessed October 25, 2006.) <<http://nd.water.usgs.gov/>> Page displays interactive map for real-time stream flow conditions and has links to drought and flood watches, information on wetlands, and Water Data Reports for 1999-2005. USGS North Dakota Water Science Center: Bismarck, ND.

USGS58. *USGS Ohio Water Science Center*. (Last accessed October 25, 2006.) <<http://oh.water.usgs.gov/index.html>> USGS Ohio Water Science Center: Columbus, OH.

USGS59. *USGS Water Resources of Oklahoma*. (Last accessed October 25, 2006.) <<http://ok.water.usgs.gov/>> Page has links to drought conditions, Climatology of Oklahoma, GIS data, and directly to USGS WDR site for Water Data Reports, 2003-2005. USGS Oklahoma Water Science Center: Oklahoma City, Oklahoma.

USGS60. *USGS Oregon Water Science Center: Water Resources of Oregon*. (Last accessed October 19, 2006.) <<http://or.water.usgs.gov/>> Page has links to information on reservoir levels, climatic conditions, Groundwater Climate Response Network data for Oregon and direct link to USGS WDR page for Annual Water Data Reports, 2002-2005. Oregon Water Science Center: Portland, OR.

USGS61. *USGS Pacific Islands Water Science Center*. (Last accessed October 24, 2006.) <<http://hi.water.usgs.gov/>> Coverage includes Palau, Guam, North Mariana Islands, and American Samoa. Page has links to NWIS, local data, and Water Year Data for 2005. Data are available via interactive map based on categories such as rainfall, surface water, groundwater, or wells. Page includes direct links to PDF files of Water Resources Data—Hawaii for 2001-2005. Data for 2005 are available via interactive map, category of station, or as PDF file of 8.19 MB. Data reports were not available on the USGS WDR Web site. USGS Pacific Islands Water Science Center: Honolulu, HI.

USGS62. *USGS Water Resources of Pennsylvania*. (Last accessed October 19, 2006.) <<http://pa.water.usgs.gov/>> Page has numerous links, including for digital spatial (GIS) data; groundwater conditions in the Potomac River basin; drought conditions, Groundwater Climate Response Network data; and Annual Hydrologic Data Reports (one volume for each of three major river basins), 1999-2005. USGS Pennsylvania Water Science Center: New Cumberland, PA.

USGS63. *USGS Resources of South Carolina*. (Last accessed October 23, 2006.) <<http://sc.water.usgs.gov/>> Page has link to Water Watch page that has its own links to such information as monthly average stream flows, drought conditions, and the Groundwater Climate Response Network. The link for *Water Data* brings up a new page that has links to NWIS data for daily mean stage and discharge and for lakes and reservoirs. There is also a link to acid rain information. The link for *Publications* brings up a page that describes and has links to Water Data Reports for 1999-2005. USGS Water Science Center: Columbia, South Carolina.

USGS64. *USGS South Dakota Water Science Center*. Last updated October 16, 2006. (Last accessed October 23, 2006.) <<http://sd.water.usgs.gov/>> Page has interactive map for real-time NWIS data, plus links to GIS resources and drought conditions. USGS South Dakota Water Science Center: Rapid City: SD.

USGS65. *USGS Tennessee Water Science Center*. (Last accessed October 23, 2006.) <<http://tn.water.usgs.gov/>> Page has links to turbidity monitoring via NWIS and a direct link to Water Data Report for 2005. USGS Water Science Center: Nashville, TN.

USGS66. *USGS Texas Water Science Center*. (Last accessed October 5, 2006.) <<http://tx.water.usgs.gov/>> Page has links to a new page that gives monitoring sites by basin; NWIS data for lakes and reservoirs and for storm surges and flood

and drought conditions; non-USGS sources of data; and a direct link to USGS WDR page for Water Data Reports, 1998-2005. USGS Texas Water Science Center: Austin, TX.

USGS67. *USGS Utah Water Science Center*. Last updated October 5, 2006. (Last accessed October 19, 2006.) <<http://ut.water.usgs.gov/>> Page has link to elevations of the Great Salt Lake and a direct link to Water Resources Data for 2005. USGS Utah Water Science Center: West Valley City, UT.

USGS68. *USGS Water Resources of Virginia*. (Last accessed October 24, 2006.) <<http://va.water.usgs.gov/>> Page has interactive map for real-time stream flow conditions and links to Water (drought) Watch page and page that describes and has links to Water Data Reports for 1995-2005. USGS Virginia Water Science Center: Richmond, VA.

USGS69. *USGS Washington Water Science Center*. (Last accessed October 20, 2006.) <<http://wa.water.usgs.gov/>> Page has links to latest river conditions via interactive map of basins; StreamStats, an interactive tool for obtaining estimates of stream flow statistics for ungauged sites; and a direct link to Water Resources Data for 2005. USGS Washington Water Science Center: Tacoma, WA.

USGS70. *USGS West Virginia Water Science Center*. Last modified October 23, 2006. (Last accessed October 26, 2006.) <<http://wv.usgs.gov/>> Page includes links to Water Watch, drought watch, Groundwater Climate Response Network, National Weather Service stage data, and information on sites where acid rain is being monitored. USGS West Virginia Water Science Center: Charleston, WV.

USGS71. *USGS Wisconsin Water Science Center*. (Last accessed October 20, 2006.) <<http://wi.water.usgs.gov/>> Page has links to Water Conditions in Wisconsin for Quarter Ending March 31, 2006 (provides data primarily by basin) and a direct link to Water Resources Data for 2005. USGS Wisconsin Water Science Center: Middleton, WI.

USGS72. *USGS Wyoming Water Science Center*. Last modified September 14, 2006. (Last accessed October 26, 2006.) <<http://wy.water.usgs.gov/>> Page has links to drought watch map, non-USGS resources, and Yellowstone River Basin National Water Quality Assessment (NAWQA) project. It also has direct links to Water Resources Data for 2005 and another page that has links to Water Data Reports for 2000-2005. USGS Wyoming Water Science Center: Cheyenne, WY.

USGS Water Data Report/ Water Resources Data. Last modified September 7, 2006. (Last accessed October 21, 2006.) <<http://pubs.usgs.gov/wdr/2005/>> Forty-seven states or regions (e.g., the Caribbean) produce annual compilations of water data pertaining to (1) discharge and crest stages of rivers and streams; (2) stage, content, and water quality of lakes and reservoirs; (3) quantities of precipitation and snow; and/or (4) groundwater levels and quality. In some cases the state produces a document; in other cases the

compiled data are searchable by county, hydrologic unit, site number, or interactive map. U.S. Geological Survey: Reston, VA. The following data or reports for water year 2005 are accessible.

USGS73. *Water Resources Data—Alabama Water Year 2005*. (Last accessed October 21, 2006.) <http://al.water.usgs.gov/usgs/AL_ADR_2005.pdf> Direct link to PDF file of report: 626 pp., 5.49 MB. USGS Water Resources Division, Alabama District: Montgomery, AL. Water-Data Report AL-05-1.

USGS74. Jackson, M.L., M.E. Castor, J.M. Goetz, G.L. Solin, and J.M. Wiles. *Water Data Report—Alaska, 2005*. Last modified March 31, 2006. (Last accessed October 21, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-ak-05-1/index.php>> Web page has abstract and capability to access PDF files of report sections by station, map, or title, plus link to PDF of entire report (7 MB). USGS Alaska Science Center, Office of Water Resources: Anchorage, AK. Water Data Report AK-05-1 (509 pp.).

USGS75. Fisk, G.G., N.R. Duet, E.H. McGuire, W.P. Roberts, N.K. Castillo, and C.F. Smith. *Water Resources Data—Arizona, Water Year 2005*. Last modified March 28, 2006. (Last accessed October 23, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-az-05-1/>> Web page has abstract, table of contents, and capability to view a PDF file of the entire report only (22 MB). USGS Arizona Water Science Center: Tucson, AZ. Water Data Report AZ-05-1.

USGS76. Brossett, T.H., T.P. Schrader, and D.A. Evans. *Water Resources Data—Arkansas, Water Year 2005*. <<http://pubs.usgs.gov/wdr/2005/wdr-ar-05/>> Web page has abstract, table of contents, and capability to download PDF file of entire report only (9.67 MB). USGS Arkansas Water Science Center: Little Rock, AR. Water-Data Report AR-05-1 (452 pp.).

USGS77. *Water Resources Data—California, Water Year 2005*. (Last accessed October 20, 2006.) <http://web10capp.er.usgs.gov/adr_lookup/wdr-ca-05/index.jsp> Web page enables user to search for data by county, hydrologic unit, site number, or interactive map. USGS Water Science Center: Sacramento, CA.

USGS78. Crowfoot, R.M., W.F. Payne, G.B. O'Neill, R.W. Boulger, and J.R. Sullivan. *Water Resources Data—Colorado, Water Year 2005*. (Last accessed October 21, 2006.) <http://web10capp.er.usgs.gov/adr_lookup/wdr-co-05/index.jsp> Web page enables user to search for data by county, hydrologic unit, site number, or map. USGS Water Science Center: Lakewood, CO.

USGS79. Morrison, J., T.C. Sargent, J.W. Martin, and J.R. Norris. *Water Resources Data—Connecticut, Water Year 2005*. Last modified April 24, 2006. (Last accessed October 20, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-ct-05-1/>> Web page has abstract, table of contents, and capability to download PDF files of

sections of the report. USGS Connecticut Water Science Center: East Hartford, CT. Water Data Report CT-05-1.

USGS80. Multiple, variable authors. *Water Data Reports—Florida, Water Year 2005*. (Last accessed October 23, 2006.) <<http://pubs.usgs.gov/wdr/#SD>> This general Web page for all USGS Water Data Reports has separate links for Volumes 1 through 4, each of which covers a different area of the state. Volumes 1 through 3 each comprise a Volume A (*Surface Water*) and B (*Groundwater*); Volume 4 (*Northwest Florida*) includes both surface and groundwater data. Each link brings up an abstract, table of contents, and access to a PDF file of the entire volume; volumes 2A and 2B offer PDF files of sections as well. USGS Florida Integrated Science Center: Ft. Lauderdale, FL. Water Data Reports FL-05-1 through FL-05-4.

USGS81. *Water Data Report—Georgia, Water Year 2005*. (Last accessed October 24, 2006.) <http://web10capp.er.usgs.gov/adr_lookup/wdr-ga-05/> Web page enables user to search for data by county, hydrologic unit, site number, or interactive map. USGS Georgia Water Science Center: Atlanta, GA.

USGS82. *Water Resources Data—Idaho, Water Year 2005*. Report is in two volumes. Volume 1: Brennan, T.S., A.K. Lehmann, and I. O'Dell. *Surface Water Records*. Last modified March 27, 2006. (Last accessed October 25, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-id-05-1/>> Web page has abstract plus capability to download PDF files of sections of the report primarily by river basin. Water Data Report ID-05-1. Volume 2: Campbell, A.M., S.N. Conti, and I. O'Dell. *Groundwater Records*. <<http://pubs.usgs.gov/wdr/2005/wdr-id-05-2/>> Web page has abstract plus capability to download PDF files of sections of the report. Water Data Report ID-05-2. USGS Idaho Water Science Center: Boise, ID.

USGS83. *USGS Water Resources Data for Illinois, Water Year 2005* (includes historical data). Last modified March 17, 2006. (Last accessed October 24, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-il-05/start.htm>> Web page has links that direct the user to new pages that contain sections of the report in HTM format, plus the capability to search for data by station number. USGS Illinois Water Science Center: Urbana, IL.

USGS84. Morlock, S.E., H.T. Nguyen, and D.K. Majors. *Water Resources Data—Indiana, Water Year 2005*. (Last accessed October 24, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-in-05/>> Web page enables user to download ZIP PDF file of entire report (12.4 MB) or sections. USGS Indiana Water Science Center: Indianapolis, IN. Water-Data Report IN-05-1.

USGS85. Nalley, G.M., J.G. Gorman, R.D. Goodrich, G.R. Littin, S.M. Linhart, V.E. Miller, and K.S. Housel. *Water Resources Data—Iowa, Water Year 2005*. Last modified January 12, 2006. (Last accessed October 24, 2006.)

<<http://pubs.usgs.gov/wdr/2005/wdr-ia-05-1/>> Web page has abstract, table of contents, and capability to download a PDF file of the entire report only (29.4 MB). USGS Iowa Water Science Center: Iowa City, IA. Water Data Report IA-05-1.

USGS86. Putnam, E., and D.R. Schneider. *Water Resources Data—Kansas, Water Year 2005*. Last modified February 28, 2006. (Last accessed October 24, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-ks-05-1/>> Web page has abstract, table of contents, and capability to download PDF files of sections of the report. USGS Kansas Water Science Center: Lawrence, KS. Water Data Report KS-05-1 (635 pp.).

USGS87. McClain, D.L., C.R. Moses, and R.S. Darnell. *Water Resources Data—Kentucky, Water year 2005*. Last updated April 17, 2006. (Last accessed October 24, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-ky-05-1/>> Web page has abstract, table of contents, and capability to download PDF files of sections of the report. USGS Kentucky Water Science Center: Louisville, KY. Water Data Report KY-05-1 (568 pp.).

USGS88. Baumann, T., B.B. Goree, W.M. Lovelace, P.A. Montgomery, G.B. Ross, D.J. Walters, and A.N. Ward. *Water Resources Data for Louisiana, Water Year 2005*. Last modified April 10, 2006. (Last accessed October 24, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-la-05-1/>> Web page has abstract, table of contents, and capability to download PDF files of the entire report (12 MB) or sections. USGS Water Resources, Louisiana District: Baton Rouge, LA. Water Data Report LA-05-01 (909 pp.).

USGS89. Stewart, G.J., J.M. Caldwell, A.R. Cloutier, and L.E. Flight. *Water Resources Data—Maine, Water Year 2005*. Last modified April 3, 2006. (Last accessed October 20, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-me-05-1/>> Web page has abstract, table of contents, and capability to download PDF files of the entire report (25.1 MB) or sections. USGS Maine Water Science Center: Augusta, ME. Water Data Report ME-05-1.

USGS90. *Water Resources Data—Maryland, Delaware, and Washington, D.C., Water Year 2005*. (Last accessed October 26, 2006.) Report is in two volumes. Volume 1: Saffer, R.W., R.H. Pentz, and A.J. Tallman. *Surface Water Data*. Last modified May 16, 2006. <<http://pubs.usgs.gov/wdr/2005/wdr-md-de-dc-05-1/>> Web page has abstract, table of contents, and capability to download PDF file of entire report only (7.4 MB). Water Data Report MD-DE-DC-05-1. Volume 2: Curtin, S.E., D.A. Bringman, and E.H. Marchand. *Groundwater Data*. Last modified August 16, 2006. <<http://pubs.usgs.gov/wdr/2005/wdr-md-de-dc-05-2/>> Web page has abstract, table of contents, and capability to download PDF file of entire report only (5.1 MB). WDR-MD-DE-DC-05-2. USGS Maryland-Delaware-Washington, D.C. Water Science Center: Baltimore, MD.

USGS91. *Water Resources Data—Massachusetts, Water Year 2005*. (Last accessed October 21, 2006.) <http://web10capp.er.usgs.gov/adr_lookup/wdr-ma-05/> User can search for data by county, hydrologic unit, site number, or map. USGS Massachusetts-Rhode Island Water Science Center: Northborough, MA.

USGS92. Mitton, G.B., K.G. Guttormson, G.W. Stratton, and E.S. Wakeman. *Water Resources Data in Minnesota—Water Year 2005 Annual Report*. Last updated April 14, 2006. (Last accessed October 25, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-mn-05-1/>> Page has abstract, table of contents, and capability to download PDF files of the entire report (4.6 MB), sections, or data by station location and number. USGS Water Science Center, Minnesota: Mounds View, MN. Water Data Report MN-05-1.

USGS93. Morris III, F., M.S. Runner, K.E. Burks, and M.A. Manning. *Water Resources Data—Mississippi, Water Year 2005*. Last modified August 21, 2006. (Last accessed October 25, 2006.) <http://ms.water.usgs.gov/WDR_MS_05_1.html> Page has introduction, table of contents, and capability to download a PDF file of the entire report only (4.3 MB). USGS Mississippi Water Science Center: Jackson, MS. Water Data Report MS-05-1.

USGS94. Hauck, H.S., and T.H. Harris. *Water Resources Data—Missouri, Water Year 2005*. Last modified March 30, 2006. (Last accessed October 21, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-mo-05/>> Web page has abstract, table of contents, and capability to download PDF files of the entire report (18.3 MB) or sections. USGS Missouri Water Science Center: Rolla, MO. Water Data Report MO-05-1 (724 pp.).

USGS95. Berkas, W.R., M.K. White, P.B. Ladd, F.A. Bailey, and K.A. Dodge. *Montana Water Resources Data—2005*. Last updated June 29, 2006. (Last accessed October 21, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-mt-05/>> Web page has abstracts and tables of contents of each of two volumes, plus the capability to download PDF files of entire volumes or sections. Volume 1: *Hudson Bay and Upper Missouri River Basins* (29.1 MB). Water Data Report MT-05-1. Volume 2: *Yellowstone and Upper Columbia River Basins and Groundwater Levels* (39.2 MB). Water Data Report MT-05-2. USGS Water Science Center: Helena, MT.

USGS96. *Water Resources Data—Nebraska, Water Year 2005*. (Last accessed October 25, 2006.) <http://web10capp.er.usgs.gov/adr_lookup/wdr-ne-05/index.jsp> Web page enables user to search for data by county, hydrologic unit, site number, or map. USGS Nebraska Water Science Center: Lincoln, NE.

USGS97. *Water Resources Data—Nevada, Water Year 2005*. (Last accessed October 25, 2006.) <http://web10capp.er.usgs.gov/adr_lookup/wdr-nv-05/> Web

page enables user to search for data by county, hydrologic unit, site number, or map. USGS Nevada Water Science Center: Carson City, NV.

USGS98. *Water Resource Data for New Hampshire and Vermont, 2005*. Kiah, R.G., C. Keirstead, R.O. Brown, and G.S. Hilgendorf. (Last accessed October 20, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-nh-05-1/>> Web page has abstract, table of contents, and capability to download PDF files of all (38,262 KB) or parts of the report. USGS New Hampshire-Vermont Water Science Center: Pembroke, NH. USGS Water-Data Report NH-VT-05-1.

USGS99. *Water Resources Data—New Jersey, Water Year 2005*. (Last accessed October 25, 2006.) Report consists of two volumes. Volume 1: White, B.T. H.L. Hoppe, G.L. Centinaro, J.F. Dudek, B.S. Painter, A.R. Protz, T.J. Reed, J.C. Shvanda, and A.F. Watson. *Surface Water*. <<http://pubs.usgs.gov/wdr/2005/wdr-nj-05-1/>> Page has abstract, table of contents, and capability to download a ZIP file of the entire volume (12.8 MB) or PDF files of sections. Water Data Report NJ-05-1. Volume 2: Jones, W.D. *Groundwater*. <<http://pubs.usgs.gov/wdr/2005/wdr-nj-05-2/>> Page has abstract, table of contents, and capability to download the entire volume only, as either a PDF (18 MB) or a ZIP (12.8 MB) file. Water Data Report NJ-05-2. USGS New Jersey Water Science Center: West Trenton, NJ.

USGS100. Miller, L.K., and J.A. Stiles. *Water Resources Data—New Mexico, Water Year 2005*. Last modified April 6, 2006. (Last accessed October 25, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-nm-05-1/>> Page has abstract, table of contents, and capability to download a PDF file of the entire report only (46.1 MB). USGS New Mexico Water Science Center: Albuquerque, NM. Water Data Report NM-05-1.

USGS101. *Water Resources Data—New York, Water Year 2004*. (Last accessed October 27, 2006.) Report is in three volumes, accessible through three separate Web pages, all of which offer an abstract, table of contents, and capability to download PDF files of sections of the report. Volume 1: *Eastern New York Excluding Long Island*. Last updated November 6, 2004. <<http://ny.water.usgs.gov/pubs/wdr/wdrny041/>> Water Data Report NY-04-1. Volume 2: *Long Island*. Last updated November 6, 2004. <<http://ny.water.usgs.gov/pubs/wdr/wdrny042/>> Water Data Report NY-04-2. Volume 3: *Western New York*. Last updated July 8, 2005. <<http://ny.water.usgs.gov/pubs/wdr/wdrny043/>> Web page also offers capability to download PDF file of the entire report (22.8 MB). Water Data Report NY-04-3. USGS New York District: Troy, NY.

USGS102. *North Carolina Water Resources Data Report, Water Year 2005*. Last updated March 25, 2006. (Last accessed October 25, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-nc-05/>> Web page has abstract and links to the two volumes of the report. Link brings up capability to download PDF files of

entire report, sections, or data by station. Volume 1: Walters, D.A., J.B. Robinson, and R.G. Barker. *Surface Water*. PDF file of entire report is 53 MB. Water-Data Report NC-05-1. Volume 2: Fine, J.M., B.A. Huffman, and P.L. Breton. *Groundwater*. PDF file of entire report is 10 MB. Water-Data Report NC-05-2. USGS North Carolina Water Science Center: Raleigh, NC.

USGS103. *Water Resources Data—North Dakota, Water Year 2005*. (Last accessed October 25, 2006.) There are two volumes of the report, accessible through two separate Web pages. Pages have abstract, table of contents, and capability to download a PDF file of the entire report only. Volume 1: Robinson, S.M., R.F. Lundgren, B.A. Sether, S.W. Norbeck, and J.M. Lambrecht. *Surface Water*. Last modified March 30, 2006. <<http://pubs.usgs.gov/wdr/2005/wdr-nd-05-1/>> PDF file of the entire report is 3.9 MB. Water-Data Report ND-05-1. Volume 2: Robinson, S.M., and D.R. Rosenkranz. *Groundwater*. Last modified March 30, 2006. <<http://pubs.usgs.gov/wdr/2005/wdr-nd-05-2/>> PDF file of the entire report is 2 MB. Water-Data Report ND-05-2. USGS North Dakota Water Science Center: Bismarck, ND.

USGS104. Mangus, J.P., and S.R. Frum. *USGS Ohio Water Resources Data, Water year 2005*. Last modified April 27, 2006. (Last accessed October 25, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-oh-05/>> Web page has abstract plus tables of contents of each of two volumes of the report. User can download PDF files of entire volumes or sections. Volume 1: *Ohio River Basin Excluding Project Data*. PDF file of entire volume is 7.17 MB. Water-Data Report OH-05-1 (325 pp.). Volume 2: *St. Lawrence River Basin and Statewide Project Data*. PDF file of entire volume is 4.94 MB. Water-Data Report OH-05-2 (303 pp.). USGS Ohio Water Science Center: Columbus, OH.

USGS105. *Water Resources Data—Oklahoma, Water Year 2005*. (Last accessed October 25, 2006.) Report is in two volumes. Volume 1: *Arkansas River Basin*. Last modified April 2, 2006. <<http://pubs.usgs.gov/wdr/2005/wdr-ok-05-1/>> Page has abstract, table of contents, and capability to download PDF files of the report in two parts. Water Data Report OK-05-1 (476 pp.). Volume 2: *Red River Basin*. Last modified April 2, 2006. <<http://pubs.usgs.gov/wdr/2005/wdr-ok-05-2/>> Page has abstract, table of contents, and capability to download a PDF file of the entire report only (27.8 MB). Water Data Report OK-05-2. USGS Oklahoma Water Science Center: Oklahoma City, Oklahoma.

USGS106. Herrett, T.A., G.W. Hess, M.A. Stewart, G.P. Ruppert, and M.-L. Courts. *Water Resources Data for Oregon—Water Year 2005*. Last modified May 5, 2006. (Last accessed October 21, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-or-05/>> Web page has abstract of report and capability to download PDF files of report by river basin or station. USGS Oregon Water Science Center: Portland, OR. Water Data Report OR-05-1.

USGS107. *USGS Annual Hydrologic Data Report of Pennsylvania*. (Last accessed October 23, 2006.) <<http://pa.water.usgs.gov/ar/index.html>> Web page has description of report plus links to other pages where the user can download PDF files of any of three volumes (9.8, 7.8, and 4.8 MB for 2005) or access data by river basin and station for the years 1999-2005. Volumes reflect three major river basins. USGS Pennsylvania Water Science Center: New Cumberland, PA.

USGS108. Díaz, P.L., Z. Aquino, C. Figueroa-Alamo, R. García, and A.V. Sánchez. *Water Resources Data—Puerto Rico and the U.S. Virgin Islands, Water Year 2003*. 2005. (Last accessed October 23, 2006.) <<http://pubs.usgs.gov/wdr/wdr-pr-03-1/>> Web page has abstract, table of contents, and capability to download a PDF file of the entire report only (23 MB). Caribbean Water Science Center: San Juan, Puerto Rico. Water Data Report, PR-03-1 (567 pp.).

USGS109. *Water Resources Data—Rhode Island, Water Year 2005*. (Last accessed June 5, 2007) <http://web10capp.er.usgs.gov/adr_lookup/wdr-ri-05/> Web page enables user to search for data by county, hydrologic unit, site number, or map. USGS Massachusetts-Rhode Island Water Science Center: Northborough, MA. Water Data Report RI-05-1.

USGS110. *Annual Water Data Report of South Carolina*. (Last accessed October 23, 2006.) <<http://sc.water.usgs.gov/AAR/scAARindex.html>> Web page has description of report and a link to download PDF file of entire report (621 pp., 18 MB), plus a link to another page that enables the user to download sections of the report or access data by type or station. USGS Water Science Center: Columbia, South Carolina. Water-Data Report SC-05-1.

USGS111. Burr, M.J., J.E. Williamson, R.W. Teller, and K.M. Neitzert. *Water Resources Data—South Dakota, Water Year 2005*. (Last accessed October 23, 2006.) <<http://pubs.water.usgs.gov/wdrsd051>> Web page has abstract, table of contents, and capability to download PDF files of sections of the report. USGS South Dakota Water Science Center: Rapid City: SD. Water-Data Report SD-05-1.

USGS112. Flohr, D.F., J.W. Garrett, J.T. Hamilton, and T.D. Phillips. *Water Resources Data—Tennessee, Water Year 2005*. (Last accessed October 23, 2006.) <<http://pubs.usgs.gov/wdr/2005/wdr-tn-05/>> Web page has description of the report and links to PDF files of the table of contents and sections of the report. USGS Water Science Center: Nashville, TN. Water-Data Report TN-05-1.

USGS113. *Water Resources Data—Texas, Water Year 2005*. (Last accessed October 23, 2006.) <http://web10capp.er.usgs.gov/adr_lookup/wdr-tx-05/> Web page enables user to search for data by county, hydrologic unit, station number, or map. USGS Texas Water Science Center: Austin, TX.

USGS114. Wilberg, D.E., J.R. Tibbetts, Michael Enright, C.B. Burden, C. Smith, and C.E. Angerth. *Water Resources Data—Utah, Water Year 2005*. Last modified March 31, 2006. (Last accessed October 23, 2006.)

<<http://pubs.usgs.gov/wdr/2005/wdr-ut-05/>> Web page has description, table of contents, and links to PDF files of sections of the report by river basin. USGS Utah Water Science Center: West Valley City, UT. Water-Data Report UT-05-1.

USGS115. *Water Resources Data—Virginia, Water Year 2005s*. (Last accessed October 25, 2006.) Report is in two volumes. Volume 1: Wicklein, S.M., D.C. Hayes, J.R. Guyer, and E.D. Powell. *Surface-Water Discharge and Surface-Water Quality Records*. Last modified September 7, 2006.

<<http://pubs.usgs.gov/wdr/2005/wdr-va-05-1/>> Page has abstract, table of contents, and capability to download PDF files of entire report (107.8 MB), parts of the report, or data by river basin. Water Data Report VA-05-1. Volume 2: Wicklein, S.M., E.D. Powell, J.R. Guyer, and J.A. Owens. *Groundwater Level and Groundwater Quality Records*. Last modified April 21, 2006.

<<http://pubs.usgs.gov/wdr/2005/wdr-va-05-2/>> Page has abstract, table of contents, and capability to download PDF file of entire report only (19 MB). Water Data Report VA-05-1. USGS Virginia Water Science Center: Richmond, VA.

USGS116. Kimbrough, R.A., G.P. Ruppert, W.D. Wiggins, R.R. Smith, and D.L. Kresch. *Water Resources Data—Washington Water Year 2005*. Last modified March 23, 2006. (Last accessed October 20, 2006.)

<<http://pubs.usgs.gov/wdr/2005/wdr-wa-05-1/>> Web page has abstract, table of contents, and capability to download PDF files of sections of the report; sections generally reflect river basins. USGS Washington Water Science Center: Tacoma, WA. USGS Water Data Report WA-05-1.

USGS117. Ward, S.M., and G.R. Crosby. *Water Resources Data—West Virginia, Water Year 2005*. Last modified May 30, 2006. (Last accessed October 26, 2006.)

<<http://pubs.usgs.gov/wdr/2005/wdr-wv-05-1/>> Web page has abstract, table of contents, and capability to download PDF files of the entire report (12,300 KB) or sections. USGS West Virginia Water Science Center: Charleston, WV. Water Data Report WV-05-1.

USGS118. Waschbusch, R.J., D.L. Olson, and S.B. Marsh. *Water Resources Data—Wisconsin, Water Year 2005*. (Last accessed October 20, 2006.)

<<http://pubs.usgs.gov/wdr/2005/wdr-wi-05-1/>> Web page has abstract, table of contents, and capability to download PDF files of sections of the report. USGS Wisconsin Water Science Center: Middleton, WI. USGS Report WDR-WI-05-1.

USGS119. *Wyoming Water Resources Data, Water Year 2005*. Last modified September 8, 2006. (Last accessed October 26, 2006.)

<<http://pubs.usgs.gov/wdr/2005/wdr-wy-05/>> Web page has abstract and direct

links to PDF files of each of two volumes. Volume 1: *Surface Water* (30.8 MB). Water Data Report WY-05-1. Volume 2: *Groundwater* (10.8 MB). Water Data Report WY-05-2. USGS Wyoming Water Science Center: Cheyenne, WY.

California Department of Water Resources (CDWR)1. *California Data Exchange Center: Access Point to the DWR Operational Hydrologic Data*. (Last accessed October 5, 2006.) <<http://cdec.water.ca.gov/>> Web page has links to various types of data, some of it real-time, including reservoir data, water supply, and river flows. California Department of Water Resources, Division of Flood Management: Sacramento, CA.

CDWR2. *California Irrigation Management Information System (CIMIS)*. (Last accessed October 5, 2006.) <<http://wwwcimis.water.ca.gov/cimis/welcome.jsp>> Web page gives overview of CIMIS and various links to data, including precipitation, humidity, evapotranspiration, and air and soil temperatures by county. User registers in order to access hourly, daily, or monthly data from CIMIS weather stations and utilize other tools to help in scheduling irrigation. California Department of Water Resources, Office of Water Use Efficiency: Sacramento, CA.

CDWR5. *Final California Water Plan Update 2005*. December 2005. (Last accessed October 5, 2006.) <<http://www.waterplan.water.ca.gov/cwpu2005/index.cfm>> Web page provides links to PDF files of each of the five volumes and individual chapters or highlights of the plan, in particular Volume I, Chapter 3, *California Water Today*: 52 pp., 4.17 MB. California Department of Water Resources, Planning and Local Assistance: Sacramento, CA. Bulletin 160-05.

CSWRCB2. *California Environmental Protection Agency: State Water Resources Control Board*. (Last accessed October 15, 2006.) <<http://www.waterboards.ca.gov/>> Web page has news stories and links to the regional boards and topics such as water quality and water rights. California Environmental Protection Agency, State Water Resources Control Board: Sacramento, CA.

Florida Department of Environmental Protection (FLDEP)2. *Information from the Drinking Water Database*. Last updated May 9, 2006. (Last accessed October 5, 2006.) <<http://www.dep.state.fl.us/water/drinkingwater/download.htm>> Web page describes the database and has links to chemical data, basic facility reports, flow data, and plant treatment data. Florida Department of Environmental Protection, Water Resource Management—Drinking Water Program: Tallahassee, FL.

Lone Star Chapter of the Sierra Club (LSSC)1. *Facts about Texas Water*. January 2003. (Last accessed October 6, 2006.) <<http://www.texas.sierraclub.org/press/facts.asp>> Web page has links to PDF files of the parts of the book, including Part 2, Section I: *Where We Get our Water* (includes a map of Texas aquifers). Sierra Club, Lone Star Chapter: Austin, TX.

(LSSC)2. *Facts about Your Water Supply*. September 2003. (Last accessed October 6, 2006.) <<http://www.texas.sierraclub.org/press/facts2.asp>> Web page has links to PDF

files of each of three parts of the book, which describe the state, regional, and local entities that concern themselves with water. Sierra Club, Lone Star Chapter: Austin, TX.

New Jersey Department of Environmental Protection (NJDEP)1. *Water System General Information*. (Last accessed October 5, 2006.)

<http://datamine.state.nj.us/DEP_Opra/OpraMain/report?report=Water+System+General+Information> Web page enables user to obtain information on water systems based on population, type of owner, type of water system, and type of water. New Jersey Department of Environmental Protection: Trenton, NJ.

NJDEP2. *Division of Water Supply*. (Last accessed October 9, 2006.)

<<http://www.state.nj.us/dep/watersupply/>> Web page provides links to various resources and reports pertaining to water supply, such as reservoir levels and hydrologic conditions. New Jersey Department of Environmental Protection, Division of Water Supply: Trenton, NJ.

New Jersey Water Supply Authority (NJWSA)1. *Water System General Information*. (Last accessed October 6, 2006.) <<http://www.njwsa.org/>> Web page includes links to information on reservoir storage, river flows, and watershed protection. New Jersey Water Supply Authority: Clinton, NJ.

New Mexico Water Resources Research Institute (NMWRRI)1, New Mexico State University; Centro de Información Geográfica, Universidad Autónoma de Ciudad Juárez, México; Pan-American Center for Earth and Environmental Sciences, University of Texas at El Paso. *Creating a Single Map Regional Geographic Information System to Support Water Planning in the Paso Del Norte Region*. May 2002. (Last accessed October 6, 2006.) <<http://wrri.nmsu.edu/publish/techrpt/tr322/tr322.pdf>> Direct link to PDF file of report: 22 pp., 1.79 MB. Prepared for the Paso del Norte Water Task Force by the New Mexico Water Resources Research Institute, New Mexico State University; Centro de Información Geográfica, Universidad Autónoma de Ciudad Juárez, México; Pan-American Center for Earth and Environmental Sciences, and University of Texas at El Paso.

New York State Department of Environmental Conservation (NYSDEC)2. *Facts about the Waters of New York State*. (Last accessed October 6, 2006.)

<<http://www.dec.state.ny.us/website/dow/wfacts.html>> Web page provides details about waterbodies, wetlands, and precipitation in New York State. New York State Department of Environmental Conservation, Division of Water: Albany, NY.

NYSDEC3. *Water Resources Background*. (Last accessed October 6, 2006.)

<<http://www.dec.state.ny.us/website/dow/bwam/305b/part2.pdf>> Direct link to PDF file of Part II of the New York State Water Quality Section 305(b) Report for 2004: 22 pp., 227.50 KB. Part II provides information on state population, surface and groundwater resources, and end-uses/consumption. New York State Department of Environmental Conservation, Division of Water, Bureau of Water Assessment and Management: Albany, NY.

Texas Commission on Environmental Quality (TCEQ)1. *Drinking Water and Water Availability*. (Last accessed October 6, 2006.)

<http://www.tceq.state.tx.us/nav/util_water/> Web page provides links to information about water supply sources, plans for drought or loss of supply, protecting aquifers and surface water, and the Water Utility Database (citation TCEQ2). Texas Commission on Environmental Quality: Austin, TX.

TCEQ2. *TCEQ Water Utility Database (WUD)*. (Last accessed October 6, 2006.)

<http://www.tceq.state.tx.us/permitting/water_supply/ud/iwud.html> Web page has brief description of the database, links to the database, and instructions. Texas Commission on Environmental Quality: Austin, TX.

Texas Water Development Board (TWDB)1. Pittman, E.G.R., Chairman; L.J. Hunt, Vice-Chairman; and Members J.E. Herring, W.W. Meadows, T.W. Labatt III, and D.V. Guerra Jr. *2007 Draft State Water Plan (Water for Texas, 2007)*. August 2006. (Last accessed September 26, 2006.)

<http://www.twdb.state.tx.us/publications/reports/State_Water_Plan/2007/Draft_2007S_WP.htm> Web page has a brief description of the plan plus links to PDF files of the volumes, chapters, and appendixes for the plan, including Volume II, the plan itself, which contains chapters on surface water and groundwater, and Chapter 9, Water Supply Needs. Texas Water Development Board: Austin, TX.

Washington State (WAS)3. *River and Stream Flow Monitoring*. (Last accessed October 6, 2006.) <http://www.ecy.wa.gov/programs/eap/flow/shu_main.html> Web page describes stream flow monitoring program and has link to access mapped information on stations in the monitoring network. Washington State Department of Ecology: Olympia, WA.

WAS6. *Water Resources*. (Last accessed October 6, 2006.)

<<http://www.ecy.wa.gov/programs/wr/ws/wtrsuply.html>> Web page has news and updates on water supply (drought) conditions, along with numerous links to information on snowpack, monthly basin reports, and climate outlook. Washington State Department of Ecology: Olympia, WA.

CALFED1. *California Bay-Delta Authority: About CALFED*. (Last accessed October 15, 2006.) <<http://www.calwater.ca.gov/AboutCalfed/CALFEDProgram.shtml>> Web page describes the history and current status of the CALFED Program, which is intended to improve state water supplies and water quality in the San Francisco Bay/Sacramento-San Joaquin River Delta. Page has links to CALFED agencies, their Annual Report for 2004, and additional information. The CALFED Bay-Delta Program: Sacramento, CA.

Lower Colorado River Authority (LCRA)1. *Water Home*. (Last accessed October 29, 2006.) <<http://www.lcra.org/water/index.html>> Web page has links to access information on stream flows in the upper and lower basins, lake levels, a daily river report (with

operations summary, releases, etc.), and current and historical lake summaries. Lower Colorado River Authority: Austin, TX.

EBMUD2. *Daily Water Supply Report*. (Last accessed October 6, 2006.)

<http://www.ebmud.com/water_&_environment/water_supply/daily_reports/default.htm

> Web page is updated daily with data as of midnight the previous date. Data include reservoir elevations and storage, water transmission, water production and demand, river flows, and a seven-day summary of precipitation. East Bay Municipal Utility District: Oakland, CA.

EBMUD1. *Urban Water Management Plan 2005*. November 2005. (Last accessed October 6, 2006.)

<http://www.ebmud.com/water_&_environment/water_supply/urban_water_management_plan/2005_uwmp/default.htm> Web page has links to PDF files of the six chapters and various appendixes of the report, including Chapter 2, Water Supply and Water Supply Planning: 22 pp., 5.27 MB. East Bay Municipal Utility District, Water Resources Planning Division: Oakland, CA.

County of Los Angeles Department of Public Works (LADPW)1. Water Resources Unit. *County of Los Angeles Department of Public Works, Waterworks District No. 29, Malibu and the Marina del Rey Water System: 2005 Urban Water Management Plan*. December 2005. (Last accessed October 6, 2006.)

<<http://ladpw.org/WWD/WaterworksDists/29UWMP.pdf>> Direct link to PDF file of plan: 245 pp., 3.13 MB. Prepared for the County of Los Angeles, Department of Public Works: Alhambra: CA. [Because PDF file is so large, one might prefer to link instead to Los Angeles County Waterworks Districts Web page, which has a link for the plan. See <http://ladpw.org/WWD/WaterworksDists/>.]

Tampa Bay Water (TAM)1. *View Current Supplies*. (Last accessed October 6, 2006.)

<<http://www.tampabaywater.org/watersupply/currentsupplies.aspx>> Web page has links to current supplies, future supplies, and master water plan, as well as a map and menu from which the user can obtain general information on given facilities (but no real-time data on current supplies). Tampa Bay Water: Clearwater, FL.

TAM3. *Optimized Regional Operations Plan (OROP) Annual Reports*. (Last accessed October 7, 2006.) <<http://www.tampabaywater.org/programs/oropreports.aspx>> Page includes a link to an FTP site for reports for 2006 (July 2006; 43 pp., 23.87 MB) and previous years. Tampa Bay Water: Clearwater, FL.

New York City Department of Environmental Protection (NYCDEP)1. *New York City's Water Supply System: The 2005 Drinking Water Supply and Quality Report*. 2006. (Last accessed October 6, 2006.) <<http://www.nyc.gov/html/dep/html/wsstate.html>> Web page describes the report and provides links to 2005 report (16 pp., 3.95 MB) and to reports from previous years. Report contains some information on supplies and watersheds. New York City Department of Environmental Protection: Flushing, NY.

NYCDEP3. *New York City's Water Supply System: Current System Status*. (Last accessed October 6, 2006.) <<http://www.nyc.gov/html/dep/html/current.html>> Web page includes links to a map showing locations for which the user can obtain recent reservoir levels, consumption data, and overall watershed precipitation. Other links include one to a History of Drought and Water Consumption in the city. New York City Department of Environmental Protection: Flushing, NY.

3.3.2. Wastewater

In the data workbook, wastewater measurements (abbreviated WWM) typically are given for biological oxygen demand (BOD), suspended solids (SS), and total suspended solids (TSS).

Consortium for Energy Efficiency (CEE)1. *ENERGY STAR's Water/Wastewater Focus: A National, Collaborative Approach to Enhance Energy Performance within Municipal Facilities*. March 21, 2006. (Last accessed October 5, 2006.) <<http://aceee.org/conf/mt06/i4-jones.pdf>> Direct link to PDF file of PowerPoint presentation to the Working Session: Industrial Programs Track (T. Jones, Facilitator): 21 pp., 120 KB. *ACEEE 2006 Market Transformation Symposium*. Washington, D.C. American Council for an Energy-Efficient Economy: Washington, D.C.

EPA5. *Clean Watersheds Needs Survey (CWNS)*. (Last accessed October 7, 2006.) <<http://www.epa.gov/owmitnet/mtb/cwns/>> Web page contains links to various resources, including the CWNS 2000 Report to Congress, a facility inventory by state, and a report on population served and flow by state. U.S. Environmental Protection Agency, Office of Wastewater Management: Washington, D.C.

EPA14. *National Pollutant Discharge Elimination System (NPDES)*. (Last accessed October 7, 2006.) <<http://cfpub.epa.gov/npdes/>> Web page includes a description of NPDES permits, links to a list of current issues and information on facilities that have NPDES permits (EPA's EnviroFacts Warehouse), and links to the compliance and enforcement status of facilities having NPDES permits. U.S. Environmental Protection Agency, Office of Wastewater Management: Washington, D.C.

FLDEP4. *Wastewater Program*. (Last accessed October 5, 2006.) <<http://www.dep.state.fl.us/water/wastewater/dom/index.htm>> Web page provides overview, news, and links to information on domestic or industrial wastewater, as well as wastewater facilities. Florida Department of Environmental Protection, Water Resource Management, Wastewater Program: Tallahassee, FL.

FLDEP8. *Water Data Central*. (Last accessed October 15, 2006.) <<http://www.dep.state.fl.us/water/datacentral/data.htm>> Web page has links to various internal and external sources of water data, including data related to beaches and coastal systems, groundwater, and Florida's STORET data. Florida Department of Environmental Protection, Water Resources Management: Tallahassee, FL.

Massachusetts Department of Environmental Protection (MADEP)3. *Bureau of Resource Protection (BRP)*. (Last accessed October 7, 2006.)

<<http://www.mass.gov/dep/about/organization/aboutbrp.htm>> Web page discusses BRP responsibilities and programs, including wastewater treatment plants, wastewater reuse, industrial wastewater, and NPDES permits. Massachusetts Department of Environmental Protection, Bureau of Resource Protection: Boston, MA.

TCEQ2. *TCEQ Water Utility Database (WUD)*. (Last accessed October 6, 2006.)

<http://www.tceq.state.tx.us/permitting/water_supply/ud/iwud.html> Web page has brief description of the database, links to the database, and instructions. Texas Commission on Environmental Quality: Austin, TX.

EBMUD1. *Urban Water Management Plan 2005*. November 2005. (Last accessed October 6, 2006.)

<http://www.ebmud.com/water_&_environment/water_supply/urban_water_management_plan/2005_uwmp/default.htm> Web page has links to PDF files of the six chapters and various appendixes of the report, including Chapter 5, Wastewater and Recycled Water: 16 pp., 18.61 MB. East Bay Municipal Utility District: Water Resources Planning Division: Oakland, CA.

LADPW1. Water Resources Unit. *County of Los Angeles Department of Public Works, Waterworks District No. 29, Malibu and the Marina del Rey Water System: 2005 Urban Water Management Plan*. December 2005. (Last accessed October 6, 2006.)

<<http://ladpw.org/WWD/WaterworksDists/29UWMP.pdf>> Direct link to PDF file of plan: 245 pp., 3.13 MB. Prepared for the County of Los Angeles, Department of Public Works: Alhambra, CA.

PPI1. *Commercial, Institutional, and Industrial Water Use Survey Program: Final Report*. March 25, 2004. (Last accessed September 26, 2006.)

<http://www.cuwcc.org/uploads/tech_docs/CII_H2OUse_Survey_Prgm_Final_Rpt_04-05-25.pdf> Direct link to PDF file of report: 48 pp., 444 KB. Prepared for the Santa Clara Valley Water District by Pollution Prevention International, Inc.: Irvine, CA.

AUS4. *Wastewater Reports—Discharge Monitoring Reports (DMR)*. (Last accessed October 6, 2006.) <<http://www.ci.austin.tx.us/water/wastewater.htm>> City of Austin, Austin Water Utility: Austin, TX.

NYCDEP2. *Wastewater Treatment*. Updated July 6, 2006. (Last accessed October 7, 2006.) <<http://www.nyc.gov/html/dep/html/wastewater.html>> Web page provides information on wastewater treatment and has various links, including to a map showing locations of drainage areas and water pollution control plants. New York City Department of Environmental Protection: Flushing, NY.

3.3.3. Water Quality

EPA2. *Local Drinking Water Information*. (Last accessed October 5, 2006.) <<http://www.epa.gov/safewater/dwinfo/index.html>> Web page has links to on-line water quality reports and an interactive map that provides information by state. U.S. Environmental Protection Agency: Washington, D.C.

EPA3. *STORET Data Warehouse*. Data refreshed as of September 27, 2006. (Last accessed October 18, 2006.) <http://www.epa.gov/storet/dw_home.html> Web page provides links to map of monitoring stations nationwide and access to various types of data, such as physical/chemical or biological/habitat data for user-specified time periods and locations. U.S. Environmental Protection Agency, Department of Water: Washington, D.C.

EPA4. *STORET Legacy Data Center*. Last updated October 7, 2006. (Last accessed October 7, 2006.) <<http://www.epa.gov/storpubl/legacy/gateway.htm>> Web page describes the legacy database and has links to enable the user to obtain historical data on water quality throughout the United States and in Canada. U.S. Environmental Protection Agency, Office of Water: Washington, D.C.

EPA6. *Watershed Information Network: Environmental Data and Maps*. Last updated October 14, 2006. (Last accessed October 14, 2006.) <<http://www.epa.gov/win/datamap.html>> Web page includes links to WATERS database, Envirofacts, and National Water Quality Assessment Data Warehouse. U.S. Environmental Protection Agency, Watershed Information Network: Washington, D.C.

EPA10. *2000 Water Quality Report*. August 2002. (Last accessed October 9, 2006.) <<http://www.epa.gov/305b/>> Web page provides links to PDF files of the 2000 National Water Quality Inventory Report to Congress [the 305(b) report], including a fact sheet, 12 chapters, and various appendixes. U.S. Environmental Protection Agency, Office of Water: Washington, D.C. EPA-841-R-02-001.

EPA11. *2002 National Assessment Database*. (Last accessed October 9, 2006.) <<http://www.epa.gov/waters/305b/index.html>> Web page describes the database, which supports an interactive summary of state-reported water quality information. The page has links to additional information and also enables the user to view water quality data by state or by individual waterbodies. U.S. Environmental Protection Agency, Office of Water: Washington, D.C.

EPA12. *Watershed Assessment, Tracking, & Environmental Results: EnviroMapper for Water*. (Last accessed October 5, 2006.) <<http://www.epa.gov/waters/enviromapper/index.html>> This interactive, Web-based geographic information system (GIS) application can display environmental information about bodies of water in the United States. U.S. Environmental Protection Agency, Office of Water: Washington, D.C.

EPA13. *Watershed Assessment, Tracking & Environmental Results: Office of Water Programs*. (Last accessed October 14, 2006.)

<<http://www.epa.gov/waters/data/prog.html>> Web page includes links to various databases from Office of Water programs, including water quality standards, water quality monitoring, safe drinking water, and NPDES permits. U.S. Environmental Protection Agency, Office of Water: Washington, D.C.

USGS14. *USGS National Water Information System: Web Interface—USGS Water Quality Data for the Nation*. (Last accessed October 31, 2006.)

<<http://nwis.waterdata.usgs.gov/nwis/qw>> Web page has links to real-time, daily, monthly, and annual data, as well as to results of field and laboratory testing. Page includes a link to the EPA STORET database (reference EPA3). U.S. Geological Survey, National Water Information System, Web Interface: Reston, VA.

USGS20. *National Water-Quality Assessment (NAWQA) Program*. (Last accessed October 21, 2006.) <<http://water.usgs.gov/nawqa/>> Web page describes the program and has links to news, studies, assessments, and summary reports. There is a menu item labeled *Data* that takes the user to the NSWQA Warehouse (reference USGS15). U.S. Geological Survey: Reston, VA.

USGS15. *National Water Quality Assessment (NAWQA) Data Warehouse Home*. Data available through September 30, 2005. (Last accessed October 9, 2006.)

<<http://infotrek.er.usgs.gov/traverse/f?p=NAWQA:HOME:9064182076923886405>> Web page describes available data and enables the user to map chemical concentrations in streams, lakes, wells, and other sampling sites nationwide. Data points presented on a map are generated directly from the 14 million water quality results stored in the data warehouse. The user can obtain results for groundwater, surface water, and animal tissue. Most data come from the USGS National Water Information System—NWIS Water-Quality Data for NAWQA sites. U.S. Geological Survey: Reston, VA.

USGS16. *Data from Selected U.S. Geological Survey National Stream Water-Quality Monitoring Networks (WQN) on CD-ROM*. (Last accessed October 9, 2006.)

<<http://pubs.usgs.gov/fs/FS-013-97/>>

This Web page presents Fact Sheet FS-013-97, which describes the contents of and how to purchase USGS Digital Data Series DDS-37, which includes USGS Open-File Report 96-337. U.S. Geological Survey: Reston, VA.

The Water Infrastructure Network (WIN). *WIN Reports*. (Last accessed October 15, 2005.) <<http://www.win-water.org/reports/>> Web page provides links to PDF files of some of their reports and provides a link to related reports. Listed reports include the following.

WIN1. *Clean and Safe Water for the 21st Century: A Renewed National Commitment to Water and Wastewater Infrastructure*. 2000. PDF file: 32 pp., 1.85 MB. Water Infrastructure Network: Washington, D.C.

WIN2. *Water Infrastructure NOW: Recommendations for Clean and Safe Water in the 21st Century*. 2001. PDF file: 18 pp., 524 KB.

WIN3. *All Dried Up: How Clean Water is Threatened by Budget Cuts*. September 22, 2004. PDF file: 83 pp., 570 KB.

CDWR3. *Water Quality Data*. (Last accessed October 9, 2006.)

<<http://wdl.water.ca.gov/wq-gst/>> Web page enables user to obtain data reports by station through a map or text interface. Page also contains links to other resources for water quality data. California Department of Water Resources, Planning and Local Assistance: Sacramento, CA.

CDWR4. *Municipal Water Quality Investigations Program*. (Last accessed October 9,

2006.) <<http://wq.water.ca.gov/mwq/index.htm>> Web page has links to PDF files of various publications, including specifically The Municipal Water Quality Investigations Program Summary and Findings from Data Collected October 2001 through September 2003, which reports on data collected in the Sacramento-San Joaquin Delta: June 2005; 208 pp.; 2.8 MB. California Department of Water Resources, Environmental Services, Water Quality: Sacramento, CA.

California Environmental Protection Agency, State Water Resources Control Board.

(CSWRCB)1. *Water Quality—2002 CWA 305(B) Report*. August 2003. (Last accessed, October 9, 2006.) <<http://www.swrcb.ca.gov/tmdl/305b.html>> Web page has an outline of the report and links to its various sections. California Environmental Protection Agency, State Water Resources Control Board: Sacramento, CA.

FLDEP3. *Drinking Water: Chemical Data for 2003, 2004, and 2005*. Last updated May 9, 2006. (Last accessed October 9, 2006.)

<<http://www.dep.state.fl.us/water/drinkingwater/chemdata.htm>> Web page has links to ZIP Microsoft Excel files containing monitoring results for specific organic, inorganic, disinfection byproducts, radiological, and unregulated contaminants. Florida Department of Environmental Protection, Water Resource Management—Drinking Water Program: Tallahassee, FL.

FLDEP5. *Watershed Monitoring*. (Last accessed October 12, 2006.)

<<http://www.dep.state.fl.us/water/monitoring/index.htm>> Web page describes Florida's Integrated Water Resource Monitoring Network and has links to additional information, including specifically the Integrated Water Quality Assessment for Florida: 2006 305(b) Report and 303(d) List Update—Final Draft. May 2, 2006: 235 pp., 5.87 MB. Florida Department of Environmental Protection, Division of Water Resource Management, Bureau of Watershed Management: Tallahassee, FL.

FLDEP7. Copeland, R., et al. *Overview of the Florida Department of Environmental Protection's Integrated Water Resource Monitoring Efforts and the Design Plan of the Status Network*. May 1999. (Last accessed October 12, 2006.)

<<http://www.dep.state.fl.us/water/monitoring/docs/iwrmdoc.pdf>> Direct link to PDF file

of report: 43 pp., 731.27 KB. Florida Department of Environmental Protection, Division of Water Facilities, Watershed Management Program, Ambient Monitoring Section: Tallahassee, FL.

Illinois Environmental Protection Agency (ILEPA)1. *Illinois EPA Maps: Water Quality Information*. (Last accessed October 24, 2006.)

<<http://maps.epa.state.il.us/website/wqinfo/>> Web page describes the Illinois Water-Quality Information Mapping Tool and has links to instructions, a description of the data, and capability to view the data by layers on a map. Layers include water quality, infrastructure, and water resources. Illinois Environmental Protection Agency: Springfield, IL.

Lone Star Chapter, Sierra Club (LSSC)1. *Facts about Texas Water*. January 2003. (Last accessed September 26, 2006.) <<http://www.texas.sierraclub.org/press/facts.asp>> Web page has links to PDF files of various sections of the book, including Section II, What You'll Find in Water, and Section III, Why Water Matters. Sierra Club, Lone Star Chapter: Austin, TX

Massachusetts Department of Environmental Protection (MADEP)1. *Environmental Progress Report: Safe Drinking Water*. (Last accessed October 12, 2006.) <<http://www.mass.gov/dep/water/priorities/epphome.htm>> Web page provides overview of programs and links to several resources, including 2005 Results—Drinking Water, Surface Water, and Wetlands. The Massachusetts Department of Environmental Protection, Water, Wastewater, and Wetlands: Boston, MA.

MADEP2. *Water Quality Monitoring Program*. (Last accessed October 12, 2006.) <<http://www.mass.gov/dep/water/resources/envmonit.htm>> Web page has links to various topics, including Physical/Chemical Monitoring, Quality Management Program; Data Management; and Annual Monitoring Summaries, 2002-2005. Massachusetts Department of Environmental Protection, Water, Wastewater, and Wetlands: Boston, MA.

NJDEP3. *Integrated Water Quality Monitoring and Assessment Report (2004)*. Last updated February 28, 2006. (Last accessed October 12, 2006.) <<http://www.nj.gov/dep/gis/irshp2004.html>> Web Site offers GIS-based digital downloads in ArcView shape file format. User can view data on waters that either meet standards or are impaired. Data are provided for all waterbodies or by type of waterbody (e.g., coastal, lake, non-tidal or tidal river). Associated maps show locations of waterbodies in New Jersey. New Jersey Department of Environmental Protection, Bureau of Geographic Information Systems: Trenton, NJ.

NJDEP4. *Statewide Layers: STORET Water Quality Monitoring Stations*. Last updated September 27, 2006. (Last accessed October 12, 2006.) <<http://www.nj.gov/dep/gis/stateshp.html#STORET>> Hyperlink connects to part of a Web page that describes STORET data and enables the user to download a ZIP file of water quality data from 1999 to the present or to view a map showing the locations of

monitoring stations. New Jersey Department of Environmental Protection, Bureau of Geographic Information Systems: Trenton, NJ.

NJDEP5. *Source Water Assessment Program*. Last updated December 21, 2005. (Last accessed October 12, 2006.) <<http://www.state.nj.us/dep/swap/>> Web page provides overview of program and links to various resources, including specifically Source Water Assessment Reports and Summaries, which page includes a link to a PDF file of the Statewide Summary dated December 2004: 30 pp., 1.03 MB. New Jersey Department of Environmental Protection, Division of Water Supply, Bureau of Safe Drinking Water: Trenton, NJ.

NYSDEC1. *New York State Water Quality Section 305(b) Report: 2004*. (Last accessed October 12, 2006.) <<http://www.dec.state.ny.us/website/dow/bwam/305b.html#links>> Web page describes the assessment methodology and report, provides a map of drainage basins in the state, and enables the user to view PDF files of either the entire report (515 pp., 8.84 MB) or any of the four sections plus seven appendixes. Included are Part III, Water Quality Monitoring and Assessment (52 pp., 475 KB) and Part IV, New York State Water Quality Assessment (102 pp., 1.07 MB). New York State Department of Environmental Conservation, Division of Water, Bureau of Water Assessment and Management: Albany, NY.

NYSDEC4. *Bureau of Water Assessment and Management*. (Last accessed October 12, 2006.) <<http://www.dec.state.ny.us/website/dow/bwam/index.html>> Web page provides brief descriptions of and links to additional information about various programs, including statewide monitoring; water quality assessment and reporting [e.g., Section 305(b) report and Section 313(d) list]; water quality research and special projects; water quality management programs; and Section 303(d) List of Impaired Waters. New York State Department of Environmental Conservation, Bureau of Water Assessment and Management: Albany, NY.

NYSDEC5. *The DRAFT New York State 2006 Section 303(d) List of Impaired Waters Requiring a TMDL*. February 10, 2006. (Last accessed October 6, 2006.) <<http://www.dec.state.ny.us/website/dow/303d2006.pdf>> Direct link to PDF file of report: 42 pp., 287.31 KB. New York State Department of Environmental Conservation, Division of Water, Bureau of Water Assessment and Management: Albany, NY.

New York State Department of Health (NYSDH)1. *Drinking Water Protection Program*. Revised August 2006. (Last accessed October 12, 2006.) <<http://www.health.state.ny.us/nysdoh/water/main.htm>> Web page provides links to various sources of information on public drinking water, including information about public water supply systems, capacity development, the annual water quality report, the regulatory framework, and links for water supply professionals. New York State Department of Health: Albany, NY.

Pennsylvania Department of Environmental Protection (PADEP)1. *Public Drinking Water Information*. (Last accessed October 12, 2006.)

<<http://www.depweb.state.pa.us/watersupply/cwp/view.asp?a=1251&q=447835&watersupplyNav=30131>> Web page has links to various resources, including the Drinking Water Reporting System (citation PADEP2) and annual drinking water quality reports for selected public water systems. Pennsylvania Department of Environmental Protection: Harrisburg, PA.

PADEP2. *Drinking Water Reporting System*. (Last accessed October 12, 2006.) <http://www.drinkingwater.state.pa.us/dwrs/HTM/DEP_frm.html> Web page enables the user to input water system name or ID number to obtain information about inventory, testing, and any violations. Commonwealth of Pennsylvania Department of Environmental Protection, Division of Drinking Water Management: Harrisburg, PA.

USGS21. Low, D.J., and D.C. Chichester. *Groundwater-Quality Data in Pennsylvania—A Compilation of Computerized [Electronic] Databases, 1979-2004*. 2006. (Last accessed October 19, 2006.) <<http://pubs.usgs.gov/ds/ds150/>> Web page has description and link to PDF file of report: 28pp., 1.3 MB. U.S. Geological Survey: Reston, VA. USGS Data Series 150.

WAS2. *River and Stream Water Quality Monitoring*. (Last accessed October 13, 2006.) <http://www.ecy.wa.gov/programs/eap/fw_riv/rv_main.html> Web page (1) describes the state's monitoring program and provides links to supporting documentation; (2) describes their Water Quality Index and provides links to supporting documentation; (3) provides access to monitoring results via user input or a map; and (4) provides links to annual monitoring reports (see citation WAS7) and other publications. Washington State Department of Ecology, Environmental Assessment Program: Olympia, WA.

WAS4. *Marine Water Quality Monitoring*. (Last accessed October 13, 2006.) <http://www.ecy.wa.gov/programs/eap/mar_wat/mwm_intr.html> Web page describes monitoring program and includes links to additional information, to the latest edition of the Washington State Marine Water Quality Report (1998-2000), and to data collected from 1990 on. Washington State Department of Ecology, Environmental Assessment Program: Olympia, WA.

WAS5. *Lake Water Quality Monitoring*. (Last accessed October 13, 2006.) <http://www.ecy.wa.gov/programs/eap/fw_lakes/lk_main.html> Web page includes links to data reports, assessment reports, lake-specific studies, and other sources of information about lakes. Page also notes that the state lake monitoring program was canceled in 2000. Washington State Department of Ecology: Olympia, WA.

WAS7. *Washington State's Water Quality Assessment [303(d)]: Washington State's Water Quality Assessment 305(b) Report*. (Last accessed October 13, 2006.) <http://www.ecy.wa.gov/programs/wq/303d/305b_report/305b-index.html> Web page briefly describes 305(b) and 303(d) reports and has links to other pages that describe and enable access to PDF files of 1998, 2000, 2001, and 2002 reports. The 2002 report (published June 2002) is 40 pp., 419 KB. Washington State Department of Ecology: Olympia WA.

WAS8. Hallock, D. *River and Stream Water Quality Monitoring Report for Water Year 2005*. September 2006. (Last accessed October 13, 2006.) <<http://www.ecy.wa.gov/biblio/0603032.html>> Web page has brief description, abstract, and link to PDF file of report: 174 pp., 1.89 MB. This is the most recent of the specific reports referred to in WAS2. Washington State Department of Ecology, Environmental Assessment Program: Olympia, WA. Publication No. 06-03-032.

WAS9. *Source Water Assessment Program*. Data last updated December 31, 2005. (Last accessed October 13, 2006.) <<https://fortress.wa.gov/doh/eh/dw/swap/>> Web page briefly describes program and provides links to assessment reports and GIS data for approximately 6,800 water sources (wells/surface/springs) operated by approximately 4,100 public water systems in Washington. Page has links to interactive GIS map and water system data. Washington State Department of Health, Division of Environmental Health, Office of Drinking Water: Olympia, WA.

WAS10. *Groundwater Assessment in Washington State*. (Last accessed October 13, 2006.) <<http://www.ecy.wa.gov/programs/eap/groundwater/index.html>> Web page includes links to information on assessment studies, monitoring programs, and state policies and regulations on groundwater. Washington State Department of Ecology: Olympia, WA.

WAS11. Hallock, D. *Washington State Water Quality Conditions in 2004, based on Data from the Freshwater Monitoring Unit*. December 2005. (Last accessed October 13, 2006.) <<http://www.ecy.wa.gov/biblio/0503036.html>> Web page has short description and link to PDF file of report: 22 pp., 1.36 MB. Page also provides access to Technical Appendix. Washington State Department of Ecology: Olympia, WA. Publication No. 05-03-036.

USGS22. Rose, W.J. (team leader), H.S. Garn, G.L. Goddard, S.B. Marsh, D.L. Olson, and D.M. Robertson. *Water-Quality and Lake-Stage Data for Wisconsin Lakes, Water Year 2005*. Last modified May 3, 2006. (Last accessed October 29, 2006.) <<http://pubs.usgs.gov/of/2006/1080/>> Page has abstract, table of contents, and capability to download a PDF file of entire report only (3,696 KB). USGS Wisconsin Water Science Center: Middleton, WI. U.S. Geological Survey Open-File Report 2006-1080.

CALFED1. *California Bay-Delta Authority: About CALFED*. (Last accessed October 15, 2006.) <<http://www.calwater.ca.gov/AboutCalfed/CALFEDProgram.shtml>> Web page describes the history and current status of the CALFED Program, which is intended to improve state water supplies and water quality in the San Francisco Bay/Sacramento-San Joaquin River Delta. Page has links to CALFED agencies, their Annual Report for 2004, and additional information. The CALFED Bay-Delta Program: Sacramento, CA.

EBMUD3. *EBMUD Annual Water Quality Report*. April 2006. (Last accessed October 13, 2006.) <http://www.ebmud.com/water_&_environment/water_quality/annual_report/default.htm>

> Web page provides brief description and link to PDF file of 2005 summary report to consumers: 4 pp., 1.3 MB. East Bay Municipal Utility District: Oakland, CA. Publication No. 108.

County of Los Angeles Department of Public Works (LADPW)1. *Water Resources Unit. County of Los Angeles Department of Public Works, Waterworks District No. 29, Malibu and the Marina del Rey Water System: 2005 Urban Water Management Plan*. December 2005. (Last accessed October 14, 2006.)

<<http://ladpw.org/WWD/WaterworksDists/29UWMP.pdf>> Direct link to PDF file of report: 245 pp. 3.13 MB. County of Los Angeles Department of Public Works: Alhambra, California.

TAM2. *Water Quality*. (Last accessed October 6, 2006.)

<<http://www.tampabaywater.org/watersupply/waterquality.aspx>> Web page has links to explanatory material (Regional Potable Water System: 3 pp.) and to Tampa Bay Water Consumer Confidence Report—Water Quality Data for 2005 (table: 1 p.). Tampa Bay Water: Clearwater, FL.

TAM4 *Water Quality Report 2004*. July 2004. (Last accessed October 14, 2006.)

<http://www.tampagov.net/dept_Water/conservation_education/pdf/AnnualReports_CCR/current_CCR.pdf> Direct link to PDF file of report to consumers that describes testing results and treatment methods: 4 pp., 2.96 MB. Tampa Water Department: Tampa, FL.

AUS2. *2005 Drinking Water Quality Report: January 2005 to December 2005*. (Last accessed October 14, 2006.) <<http://www.ci.austin.tx.us/water/index.htm>> Web page describes the report to consumers and provides links to summary descriptions of specific topics. City of Austin, Austin Water Utility: Austin, TX.

New York City Department of Environmental Protection (NYCDEP)1. *New York City's Water Supply System: The 2005 Drinking Water Supply and Quality Report*. 2006. (Last accessed October 6, 2006.) <<http://www.nyc.gov/html/dep/html/wsstate.html>> Web page describes the report and provides links to 2005 report (16 pp., 3.95 MB) and to reports from previous years. Report contains water quality testing results. New York City Department of Environmental Protection: Flushing, NY.

3.3.4. Watersheds

EPA5. *Clean Watersheds Needs Survey (CWNS)*. (Last accessed October 7, 2006.)

<<http://www.epa.gov/owmitnet/mtb/cwns/>> Web page contains links to various resources, including the CWNS 2000 Report to Congress. U.S. Environmental Protection Agency, Office of Wastewater Management: Washington, D.C.

EPA6. *Watershed Information Network: Environmental Data and Maps*. Last updated October 14, 2006. (Last accessed October 14, 2006.)

<<http://www.epa.gov/win/datamap.html>> Web page includes links to WATERS database,

Envirofacts, and National Water Quality Assessment Data Warehouse. U.S. Environmental Protection Agency, Watershed Information Network: Washington, D.C.

EPA13. *Watershed Assessment, Tracking & Environmental Results: Office of Water Programs*. (Last accessed October 14, 2006.)

<<http://www.epa.gov/waters/data/prog.html>> Web page includes links to various databases from Office of Water programs, including water quality standards, water quality monitoring, safe drinking water, and NPDES permits. U.S. Environmental Protection Agency, Office of Water: Washington, D.C.

EPA15. *Surf Your Watershed*. Last updated June 14, 2006. (Last accessed October 14, 2006.) <<http://www.epa.gov/surf/>> Web page, which is part of the Watershed Information Network, enables the user to access environmental information by state and watershed. U.S. Environmental Protection Agency: Washington, D.C.

USGS23. *Science in Your Watershed*. (Last accessed October 14, 2006.)

<<http://water.usgs.gov/wsc/>> Web page, which is part of the Watershed Information Network, enables the user to locate watersheds and obtain information about them. U.S. Geological Survey: Reston, VA.

California Environmental Protection Agency, State Water Resources Control Board. (CSWRCB)1. *Water Quality: 2002 California 305(b) Report on Water Quality*. August 2003. (Last accessed, September 26, 2006.) <<http://www.swrcb.ca.gov/tmdl/305b.html>> Web page has links to various sections, including the introduction (<http://www.swrcb.ca.gov/tmdl/docs/305b_introduction_part1.doc>), which includes Section D, Regional Watershed Overview. This section provides links to the Watershed Management Initiative chapters for each Regional Water Quality Control Board. California Environmental Protection Agency, State Water Resources Control Board: Sacramento, CA.

FLDEP1. *Watershed Management Program*. Last updated August 31, 2006. (Last accessed October 14, 2006.) <<http://www.dep.state.fl.us/water/watersheds/index.htm>> Web page summarizes various programs and has links to additional information on topics such as watershed monitoring and data management, watershed assessment, and groundwater assessment. Florida Department of Environmental Protection, Water Resource Management: Tallahassee, FL.

FLDEP 2 *Total Maximum Daily Loads*. (Last accessed October 15, 2006.)

<<http://www.dep.state.fl.us/water/tmdl/index.htm>> Web page has links to information on Florida's TMDL Program, the Impaired Waters Rule, 303(d) lists, and Integrated Assessment [305(b)] reports, including the Integrated Water Quality Assessment for Florida: 2006 305(b) Report and 303(d) List Update—Final Draft. May 2, 2006; 235 pp., 5.87 MB. (See FLDEP5 in Water Quality.) Florida Department of Environmental Protection, Division of Water Resource Management, Bureau of Watershed Management: Tallahassee, FL.

MADEP3. *Bureau of Resource Protection (BRP)*. (Last accessed October 7, 2006.) <<http://www.mass.gov/dep/about/organization/aboutbrp.htm>> Web page discusses BRP responsibilities and programs, including their watershed strategy. Massachusetts Department of Environmental Protection, Bureau of Resource Protection: Boston, MA.

USGS24. *Interactive Major/Minor (HUC Level 4/5/6/7) Homepage*. Last Modified October 3, 2000. (Last accessed October 25, 2006.) <<http://gisdmnspl.cr.usgs.gov/index.htm>> Web page enables the user to access an interactive Web application that can display information about drainage areas for the 84 Majors in Minnesota. The user can zoom in and out, pan, and query the Majors. The user also can reach another interactive Web page that shows connectivity of the Minors within a selected Major. Minnesota District, U.S. Geological Survey: Mounds View, MN, in cooperation with the Minnesota Department of Transportation and the Center for Urban and Regional Affairs, University of Minnesota.

NJWSA2. *Watershed Protection Programs Unit*. (Last accessed October 14, 2006.) <<http://njwsa.org/wpu/>> Web page gives overview plus links to project descriptions, papers/presentations, and GIS maps. New Jersey Water Supply Authority: Clinton, NJ.

NYSDEC1. *New York State Water Quality Section 305b Report: 2004*. (Last accessed October 12, 2006.) <<http://www.dec.state.ny.us/website/dow/bwam/305b.html#links>> Web page describes the assessment methodology and report and enables the user to view PDF files of either the entire report (515 pp., 8.84 MB) or any of the sections or appendixes, including Appendix A: Watershed/Basin Water Quality Summaries (163 pp., 4.19 MB). New York State Department of Environmental Conservation, Division of Water, Bureau of Water Assessment and Management: Albany, NY.

WAS1. *Water Resources: The Watershed Planning Act*. (Last accessed October 6, 2006.) <<http://www.ecy.wa.gov/watershed/index.html>> Web page provides links to planning information by watershed, maps showing watersheds, information on instream flows, reports, and technical guidance. Washington State Department of Ecology, Water Resources: Olympia, WA.

NYCDEP4. *NYC Water Supply Watersheds: Watershed Protection*. (Last accessed October 14, 2006.) <<http://www.nyc.gov/html/dep/watershed/home.html>> Web page provides links to various resources, including a program summary and assessment and information on the monitoring program, along with results, research, and maps. New York City Department of Environmental Protection: Flushing, NY.